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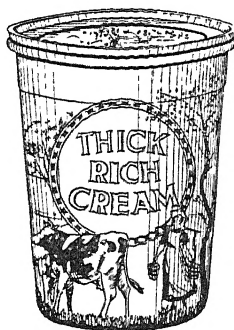
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THE LATE JOHN BENSON, M.B.E.

MEMOIR OF THE LATE JOHN BENSON, M.B.E.

A TIDE which never returns has taken from us one whose death will be mourned by not only Cumberland, which was justly more than proud of her son, but in all spheres where the English language is spoken.

Mr. Benson was born September 3rd, 1864, the eldest son of the late Mr. Thomas Benson, Unthank, Langwathby, Cumberland, who had a family of four sons and two daughters. The Bensons, of Unthank, are proud of their yeoman ancestry, and one of their stock was Primate of England.

John was brought up at Unthank, going as a lad first to a local school, afterwards to a high school at Penrith. From his earliest days he took a keen interest in everything connected with the farm livestock, including the cattle, always realising the importance and value of general purpose Dairy Shorthorn.

In the autumn of 1887 Professor James Long gave a lecture on dairying at Penrith which young Mr. Benson attended. He was so much impressed by this lecture, and so fully realised how much there was to learn in connection with dairy matters, that he went as a pupil on Professor Long's farm in Hertfordshire, where he remained for some time. From the observations he made and the knowledge he gleaned during the many visits he made to the best managed dairies he went to see, his keen observance, fine intelligence, and foresight indicated to him that there was, there and then, a field of work of which only the fringe was touched.

The British Dairy Farmers' Association, after due consideration, decided to award Diplomas of proficiency in the theory and practice of dairying, Certificates only having been given previously. Mr. John Benson was the first person to secure one of these.

At this time the British Dairy Farmers' Association decided that the time had come when they should establish a School for Dairying on lines that would be comprehensive, practical, and of advantage to the Cheesemakers in every part of England. A site and buildings were obtained at Aylesbury, where the British Dairy Institute found its first home.

Mr. Benson was appointed manager, where for six-and-a-half years people from all parts of the country were trained and taught in a manner that each have had cause to gratefully remember.

In 1895, Mr. Benson, who was succeeded by his most capable younger brother, the late Miles Benson, resigned his post at Aylesbury on his acceptance of the directorship of the Midland Dairy Institute, Kingston, Derby, founded by the counties of Notts, Derby, Leicester, and the Lindsey Division of Lincolnshire, where he remained till 1899, when he had made up his mind to devote his time to farming and commercial pursuits.

Mr. Benson visited from time to time every part of Europe where the Industry of the Dairy is being carried out, while Jamaica has had the advantage of his advice and experience.

As a member of the Council of the British Dairy Farmers' Association, also of the Education, Conference, Selection of Judges, and British Dairy Institute Joint Committees, the loss of his advice and guidance will be keenly felt by the oldest and most experienced members.

During the War Mr. Benson rendered the Ministry of Agriculture a great amount of valuable advice and personal assistance in connection with the many matters that the Ministry had to deal with regarding milk, butter, and cheese.

As an Examiner, either for the National Diploma in Dairying—a post he held with the exception of two years from 1902 to 1923, when he resigned unfortunately owing to ill-health—or at the many important examinations, including those of the British Dairy Farmers' Association, he conducted elsewhere, even those he failed, even if disappointed, were satisfied that justice had been done to them; while as a judge of butter, cheese or any farm produce at the "Royal," "Dairy," or any of the great shows, I doubt if he had an equal. There are few men who will be remembered or thought of with the same respect and affection by those whom he taught, advised, or examined in the dairy world than our old and valued friend.

In the midst of the lakes and fells in the county he loved so well the rod and gun were a joy and a pleasure to as fine a type of a man and an Englishman as ever the writer knew.

WHERE WE ARE AND WHERE WE OUGHT TO BE.

By ROBERT SHANKS.

THE many vicissitudes farmers of all grades had to encounter since the slump of 1920, have hampered and curtailed his activities in many directions. Seasons and markets have gone against him, and faced with either increased rent or compulsory purchase of his farm to secure a home, the outlook is not cheering. Prospects give no indication that the future will be any better than the last decade.

Circumstances have thrown him into pecuniary difficulties, and the wherewithal to extend and develop is not forthcoming. Arable farming is doomed except on the most productive soils. Certain areas or districts give good crops one year, but there is always the uncertainty of partial or total failure. At the present moment—on land of this sort—the farmer cannot take these risks, and the agricultural returns show only too clearly the one way out. With the world looking to Great Britain as consumer of her surplus agricultural produce, the arable farmer, grazier of fat cattle, pig fatteners, cheese and butter makers, fruit growers and the produce of the poultry yard, are all battling against highly organised importations. The tendency to fall back upon the production of milk for immediate consumption, is, at the present moment, the best way out. The fortnightly cheque is the quickest return on the farm. It is from the dairy farmers' point of view I wish to state "Where We Are and Where We Ought to Be."

BUILDINGS.

It often happens when a farmer decides to start milk production, the nature and construction of his building is a handicap to the housing of his stock. It is surprising what can be done in the way of stall construction with the existing hovels and barns. There are many opportunities to-day of obtaining information as to the best form of stall for the dairy cow. The expense of constructing what is recognised the best type for comfort and cleanliness, is no more and probably less, than what it would cost to erect fittings of an unsuitable character. The Ministry of Agriculture publish a leaflet on the subject, the contents of which contain many of the suggestions thrown out by the late John Spier and Primrose McConnell, B.Sc., years before the Ministry began to spend so much money on educating the farmer.

There are always to be seen the latest in cowstall construction on some gentlemen's holdings and County Council farms, but these cannot come within the possibility of the average farmer, on a farm struggling for an existence, and a landlord unable to assist, no matter how willing the spirit. I had the opportunity of looking through the buildings of adjoining farms recently, one quite modern in construction, the other what no doubt was considered the last word thirty or forty years ago. The advance was so marked that anyone could detect at once the extraordinary development and endeavour to keep right up to date. Twenty years ago we heard much of "air space," but this fad is exploded. We are now reduced to the three essentials, viz., cleanliness, ventilation and light, and we can have these in a cramped, inconvenient cowstall. The fixing of a cooling shed, conveniently situated, with facilities for washing and scalding, are essential, but often of an undesirable character. What the

EQUIPMENT

ought to be is subject to matter of opinion on some points. What is looked upon as essential—a plentiful supply of water, 56 deg. or less—is in many cases unobtainable. The ideal equipment is a petrol engine to pump water, work small freezer, and drive dynamo for electric light. A milking machine could be attached, but all this is only within the reach of a wealthy man, or the most flourishing dairy-farmers producing not less than 100 gallons of milk daily. The freezing plants must be made cheaper. Electric light, hung well above the cows, throws the illumination to where it is wanted, and is a wide contrast to the dim, ordinary paraffin lamp so common in use, giving but a glimmer to show the way about.

The MILKING MACHINE has a few advocates, and these advocates must be specially lucky in having employees sufficiently interested and capable to produce the best results. There is no getting away from the fact that comparatively few are working, and more are standing idle or have been dismantled. From what I have seen of these in actual working—my own dairy included—the numb complicated receiver which has to be carted from cow to cow, equipped with pulsator, cups, tubing, &c., is an elaborate affair compared with the plain milking pail. I know which I prefer for reliability and minimum of washing. The simpler the equipment the better, and all utensils in use should be smooth and as free from crevices and joints as possible. The block tinned pails now on the market are the ideal. The domed milking pails have their drawbacks. Whether these will outweigh the advantages time alone will tell. Year 1925 Dairy Show gave us several specimens of coolers with small bottling equipment attached. These fitments were an indication of the trend of events for the advancement of clean milk production. A striking exhibit was a compact washing, steaming and bottling rinsing plant suitable for the ordinary farm, all at the price of £55.

The purchase of a

DAIRY COW

in the ordinary market is invariably a haphazard adventure. There are only appearances to go by and these can be deceptive. The time is approaching when the owners of all milch cows exposed for sale will have to give authentic milk records. We are a long way from this ideal yet, as not more than 6 per cent. of the animals are recorded. Such a stipulation is creditable to the vendor and a guide to the purchaser. Under this ruling "dud" animals would be fattened off, and not exposed in the dairy market to mislead the new owner.

MILK RECORDING

has, is, and will do much to increase the milk production of a herd, if authentic lines of procedure are adopted. Some of us were advocates of this twenty years or more before the Ministry of Agriculture decided to support the movement. North of the Border they have had a systematic method of checking for twenty years, inaugurated largely by the energies of the late John Spier. Your Association offered a Gold Medal for milk recording more than thirty-five years ago. This was won by Primrose McConnell, of "Note Book" fame, a Scotchman still to the fore, and farming in Essex. The low percentage of cows recorded—certainly not more than 6 per cent.—is due largely to prejudice and expense. The former will break down with the advancement of education in the rising generation. The latter does in many cases appear excessive. I know where a levy of 4s. per cow is misleading. The additional cost of calf-marking, part-time cows and three times milking, runs up the figure to 10s. per full-time cow, and these are the only figures which are of value.

I have seen instances where recording was a detriment to a herd, when exposed for sale. Figures published in a catalogue indicating the annual yield of the animal exposed, which denote only average performance or less, have a prejudicial effect.

There is a feature in connection with most Milk Recording Societies, which has a detrimental effect upon the true development of this movement, viz., the practice of offering cups for all manner of records. This practice cuts at the very root of the object in view. The trophies go to the men who are at the height of production, understand their job, and want no support or encouragement to develop their herd. Milk recording is out to encourage the men with small and unprofitable yields, and guide them along lines which are to their advantage. The class of individual who lifts the cups is usually fairly well represented on the committees, and it is amusing to note how they endeavour to introduce rules and regulations which will apply to their particular advantage. The reckoning and adjusting the many conditions appertaining to the trophies, adds to the work of the recorders. There are never more than 6 to 10 per cent. of the members in the running, and these few are usually at the top every

year. What right have this minority to ask the mass of their fellow members to support a movement for the few herds which are always predominant? If they wish herd competitions, or individual yields with their many intricate conditions, let those who are interested in this form of competition run it apart from the Milk Recording Society and keep these officials out of it.

The Ayrshire men, who are the pioneers of milk recording upon systematic lines, have nothing of this. To prove the falsity of the argument that cup competition is an incentive, we know what the Ayrshire has done at the Dairy Show these last few years. When a Scotchman turns down generous offers of cups, he has sound reasons for doing so. I believe the Ministry of Agriculture, who give grants of £3 and £3 10s. per herd, is against the movement. The innovation has now got such a hold of the Societies that the only way likely to stop the competitions is by refusing to give grants when these are held. This strong line would give the movement a fillip in the right direction.

One of the most important duties of the County Agricultural Organiser and his staff is to give

ADVICE ON FEEDING

for milk, the work being done through the Recorders of the Milk Recording Societies, collecting the ration data from the farms as they go round. I know of instances where the advice given is looked upon as of more value than the actual recording. We have made rapid progress in this direction the last few years. There is such a plethora of material drawn from experiments, put before us at the present day, that the farmer, as well as the Agricultural Organiser, has much to sift, in order to present what would apply to local conditions, viz. :—

- (1) The quantity of roots—if any—required in a winter ration.
- (2) The respective advantages of cabbages, mangolds, or marrow stem kale.
- (3) If these can be done without when good hay and high quality concentrates are judiciously given.
- (4) The value of the bye-product thrown upon the market from the beet root factories springing up throughout the country. The supply of this will increase, and it is important that a market should be found in the area of the factory. A preferential price is offered to those who supply beet root, of course, with the object of inducing the cultivation of this instead of mangolds. We are faced with the question of deciding between the use of these two foods of a similar character. From present knowledge it appears that beet pulp at £6 or £7 per ton, and given at the ratio of one-seventh to weight of roots in the ration, the results will be the same. This looks a better proposition than growing a questionable crop of mangolds.

The Wilts County Organiser has startled the dairy world by his supposed improved method of milk production—see B. D. F. A. Journal, 1925.

His statements are unusual, and the marvel is, that of all the scientific methods, aided by the routine of practical experience, which has been tested for years by the best authorities, not one has entered upon the line of production advocated by Mr. Boutflour. He may have been fortunate in coupling a few ideas together—drawn from many sources—and rolling the most desirable into one, for the production of milk from a suitable animal. I would not be surprised to learn that much of this knowledge was gained from herdsmen handling heavy-yielding dairy cows. From what little data I have at my disposal, collected on this farm, there is certainly something in it.

The value of water always available for drinking, food seasoned with one per cent. of salt, mineral ingredients supplied to maintain the phosphates drawn from the system by milk production and breeding, are all of recent date. There may be other points, equally important from the scientific point of view, but I write as a farmer.

I have before me as I write, the Report of the Rationing of Dairy Cows. It is a statement drawn up by experts for experts, and the County Agricultural Organisers are already adopting some of the suggestions. It is through these gentlemen we will obtain the information in language we can understand. We are told "that the 'amides' were equivalent in value to half their weight of true protein," and "protein equivalent" represents

$$\frac{\text{Dig. True Prot.} + \text{Dig. Crude Prot.}}{2} = \text{Protein Equiv.}$$

Well may the Intelligence Department of the Ministry remind us "that neither books nor pamphlets, nor even lectures will reach the mass of the farming community. The Ministry is bound to repeat that, broadly speaking, the County Agricultural Organisers, with the Specialist Advisory Officers as their consultants, must do the main work of instructing and guiding the practical farmer. They are the channel by which the stream of knowledge can most surely and easily flow to its destination."

Attempts are being made to simplify the calculation for a balanced ration (Ministry of Agriculture Journal, September, 1925). In my own county the Agricultural Organiser has prepared dozens of rations suitable for the dairy cow, and these are printed in pamphlet form suitable for reference as "he who runs may read." He has recently adopted the method of circularising the farmers, giving the monthly market value of the many feeding stuffs on Mark Lane, plus carriage. The unit values being worked out so as the farmer can judge for himself the cheapest food for his requirements. Starch equivalent, protein equivalent and unit values bamboozle the working farmer. We must admit the monthly notes on feedstuffs and farm values,

with table attached, are usually the most interesting part of the Journal of the Ministry of Agriculture, but comparatively few farmers see this publication.

Nature's Food.—Grass, fresh air and sunshine have always demonstrated to us that this combination gives us the best and cheapest milk yield. We realise, now, that money spent on judicious handling of pastures gives a better return than a similar expenditure on augmented concentrated diet during the summer months. Get the soil to show a green turf of wild white clover all the year round, and you have a pasture cattle will closely graze, and give the best return of anything shown to us up to the present. The sowing and encouragement of wild white clover is not nearly so general in the Southern counties as in the North. This may be due to Cockle Park being the pioneer of detailed experiments in this direction, although Professor Somerville showed what could be done on a derelict Down farm, by a dressing of slag. The best farmers North include the expensive seed in their mixture, if only for one year's grazing. The manifold advantages of this, many of we farmers proved, years before Professor Somerville took over Poverty Bottom. Slag is not what it used to be before the War, and we hear many complaints of the lack of return for money expended where it is applied alone. Add kainit and the magic wand works on most soils. I have to-day a lovely carpet of wild white clover on arable land. It did not come out of the seed bag. How your young cattle thrive on such pastures. What a bloom the heifers put on—heifers from selected cows by a "milk" bull. The docile appearance, sleek coats and rounded barrel, fill the eye of the stockman and is one of the greatest delights of a dairy farmer.

Before passing from the heading of feeding one cannot but be impressed by the variety of proprietary foods sold for the milch cow. The number of travellers pestering the farmers to purchase these is legion. I have never come across a traveller yet who was sufficiently well educated to advise the purchaser which were the cheapest foods upon Mark Lane for his particular requirements. I should like to see the day when this type of man is in a position to oust the persuasive seller of proprietary foods. We are advancing in this direction. There are a few isolated cases where the percentage of actual contents is given in addition to the analysis.

When we come to the question of

MILK

and its disposal, so much depends upon the locality and its easy access to profitable markets. The competition we have had from the preserved and dried milks of all grades has been severe. The unnecessary and unjustifiable attacks a few medical men make against milk of home production, all tend to deter the public from buying what is undoubtedly the best and cheapest of nature's foods. The National Milk Publicity Council have now got into swing and are not

only tackling the question of milk publicity, but are supporting clean milk competitions all over the country. These efforts are already bearing fruit.

The farmer is often accused of backwardness and indifference of adopting methods which would be to his benefit. The increasing interest and support to clean milk competitions is sufficient proof that there is an earnest desire to keep right up-to-date, and make special efforts to throw a cleaner and more enticing article upon the market. It is particular to emphasise that all this is done in spite of the retailers refusing to give a better price for high grade. Whether your produce shows 5 per cent. or 3 per cent. of fat, sediment test comes out tolerably clean or otherwise, the price given is all the same. Reading between the lines of present tactics, one can see the time, not far off, when the market glut of milk will mean a sifting out of all dairies where cooling, quality and cleanliness are not well up to standard. The progressive and careful producer will keep his market, while his less considerate and careless neighbour will be left with his production, unable to find a market with the distributing firms.

The rapid development of clean milk competitions has been more pronounced than that of milk recording, and it has the advantage of focussing the attention of the public upon the rivalry of the farmers to put upon the market an article of diet second to none, and produced practically at their own doors. There are at least fifty areas taking up this in England and Wales the coming year. The difficulty is that the enthusiasm of the producer in sending in large entries is baffling the organisation to handle the samples of milk sent up for inspection. Your Association is endeavouring to stimulate the desirable interest in clean milk production by offering a Stapleton Cup, with additional money prizes, for an "Inter-County Clean Milk Competition," which cannot operate—according to the conditions—until 1927.

The milk producer is up against a well organised combine of retailers when he comes to the disposal of his produce. The struggle the N.F.U. have put up these last few years, in an attempt to get a fair and reasonable price, well!—we leave it there.

The stumbling block 'twixt producer and retailer is the somewhat erratic supply which is inevitable, where all that is produced is sent off the farm. If some arrangement could be made for the same price to the farmer all the year round, coupled with a safeguard by the retailer for a stipulated quantity only to be sent, with a reasonable margin for fluctuation, this would stabilize confidence with the three parties concerned, viz. :—producer, retailer and consumer.

The farmer must be prepared to handle his surplus milk on the farm, and certainly with a figure of 10d. a gallon or less, it is well worth his while to do so. The simplest method is suckling calves. With the use of a separator, we get cream for butter and a bye-product

which produces the best of pork and bacon. Separated milk is invaluable for growing chicks, fattening poultry or the laying fowl.

The public cannot get over the fact that no trade gives the same service as the delivery of milk, viz., twice daily, seven days a week. A striking feature about delivery is the wide disparity the Wages Board have fixed between the wages of those who work on the farm and the roundsmen who deliver the milk to the consumer. The latter has a gentleman's job in comparison to the former. We hear that the restricted hours, coupled with the high rate of pay allotted to the roundsman, is largely responsible for the heavy cost of distribution, and thus widens the gap between the figure received by the farmer and the amount the householder has to pay. The Committee of Food Enquiry has brought to prominence before the public the reason of short measure in milk. The roundsman is responsible for this, so as he can "wangle" his allotment for his own benefit, supplying customers who do not appear on his books. Bottled milk, sealed and stamped at the source of production, has not only the advantages previously referred to, but the consumer is certain of the quantity she pays for, and it is impossible for the roundsman to adopt any dishonest practice. We smile at the innocence of the housewife who buys her bottled milk at a special price, drawn from the milk churn standing round the corner.

We have heard lately of huge glass-lined cylinders being introduced to convey, by motor, milk direct from the farm to the distributing centres in the city. Here it is pasteurised, bottled and sent out to the consumer. This process entails just as much tossing to and fro of the liquid as with the ordinary milk churns. It keeps clear of the transit in a stuffy, foul-smelling railway van. So much handling and pasteurising deteriorates the palatability of the article. A townsman readily detects the difference when he gets the untampered article in the country. Under "Equipment," reference has already been made to the bottling attachment to coolers for use upon the farm. The universal use of these, coupled with improved form of transit, would give the consumer in populous areas, a drink and food which would wet his appetite for more of nature's gifts. It would materially assist all parties if ways and means could be devised whereby twice or at most three times weekly delivery of milk took place. Milk taken direct to the cooler when milking is going on, bottled and sealed, will keep for days in our climate, except on occasional periods. The increased cost of production in this way, including bottle breakages and extra carriage, runs to something like 4d. per gallon. We are anxious the public should create a demand for this at the small extra cost of 1d. per quart. Of course the important point to be impressed upon the user is to draw from the bottles only when required. The best results in this direction prevail when the producer does the retailing himself, but comparatively few are so situated to adopt this practice.

The three super grades of milk upon the market, viz., Grade A, Certified, and T.T. are confusing to the general public, and the cost of producing the last is so expensive and unsatisfactory for the producer that many have two herds; one where the re-acters are sent and still kept as dairy cows! Now the Tuberculous Order is in force the risk of the danger of milk being a carrier of the disease is very remote, in fact it has always been greatly exaggerated by cranks the public listen to.

BREED SOCIETIES AND THE DAIRY SHOW.

The wide popularity and importance of your Dairy Show is having a beneficial and educational effect upon the various breed societies where stock is shown. The importance of this exhibit has become so world-wide that the time has now arrived when each breed society must take upon itself the responsibility of inspecting cows shown at the Agricultural Hall. The fact of an animal giving rich or much milk, perhaps both, with the chance of winning in the milking trials or butter tests, ought not to entitle her to compete unless the society decides she is not only typical, but a credit to the breed. The Ayrshires are the only ones under this category at present, and we know how the arrangement has worked for the best advertisement the breed has ever had. I happen to know some of the best animals forward could only visit London with the help of their Breed Society. The only class of cow shown which could not be handled as suggested is the non-pedigree Shorthorn, and not all of these entered for competition are registered as foundation cows with the D.S.A. Ever since the "Bledisloe" trophy has been set up for competition, the team of non-pedigree Shorthorns has given the most consistent show of all the breeds. I can picture a team drawn from Cumberland and Westmoreland, but the owners of many magnificent animals could not bear the expense of a trip to London. Propaganda work does not finish with prize money and paper advertising. The best advertisement is selected animals presented in a bunch before the public. I believe the Ayrshire heifers appearing at the Dairy Show last October, eclipsed anything gathered together upon their native heath, and this 400 miles from home. More power to the Ayrshire Society, and other breeds please copy.

The foregoing are a few of the possible suggestions which might happen in the near future. Much depends upon the

EDUCATION

of the rising generation of farmers. That education need not be the recognised college course of three years. I know very few farmers who could raise the money, and the question arises whether the education or hard cash of £500 is the better proposition for one who has been brought up in the midst of hard work and practical experience of the farm. The Agricultural Organisers are doing excellent work

in their respective areas by lectures and classes for young men. In most counties the most important work is advice on dairying matters.

The Agricultural Education Committee in many of the counties have either rented or bought a farm for their practical work. Here is where the "rub" comes in. This farm *must* be made to pay, as is done in many instances, and it is here where we find the agricultural education taking most effect. Three of the most salient points in favour of a paying farm are present, viz. :—

- (1) Plenty of capital at command.
- (2) Proved experiments, showing what is the actual requirements of the soil.
- (3) An agricultural expert charge of the management.

We have thrown on the screen, photos of experimental plots, manure mixtures, seed mixtures, balanced rations by the score, but the one which ought to dominate is the balance sheet of the County Council farm. A creditable showing of this, carries with it enhanced value of the lectures and advice.

We have run through the salient features in connection with the sphere of the dairy farmers; the issues are merely touched upon. We have volumes of material written by experts from every possible angle. Much of it never reaches the farmer, and when it does it is couched in language or illustrated by diagrams which the working farmer is unable to grasp, after a hard day's work upon the farm. The foregoing is but a review of the situation and an attempt to place before your readers, "Where We Are and Where We Ought to Be," viewed through the spectacles of an ordinary farmer.

HOW TO START PIG - KEEPING (OPEN - AIR).

By GERVAISE TURNBULL.

SOME of the estimates of the economic possibility of pig-keeping are over optimistic, and obviously made with a purpose, while pessimists will probably deny that any profit can be made by the small breeder. The following estimate has been carefully drawn up with the help of experts for the writer's own guidance, and, therefore, is perhaps more a conservative one than otherwise. Outdoor conditions and a sound strain are assumed, and that markets and health of stock are reasonably good, as we have good reason to hope for, pork, not bacon, being the objective. A note of—shall we say—subdued optimism has been observable of late when experts have been asked by the writer as to their views on the prospects of the industry, not limiting the field to capitalists, and those who have retired hurt would seem to be mostly inexperienced novices who were, in the boom, lured with the prospects of a booming market for pedigree pigs.

EQUIPMENT.

Livestock.

			£	s.	d.	£	s.	d.
10 gilts of various ages	...	...	100	0	0			
1 boar	...	...	12	0	0			
						112	0	0

Dead Stock.

6 farrowing huts and carriage	...	...	48	0	0			
Wiring, hurdles, and gates	...	...	120	0	0			
Mcal shed	...	...	10	0	0			
Troughs, tubs, buckets, &c.	...	...	10	0	0			
Tools, weighing machine, and sundries	...	...	10	0	0			
4 water troughs at 18s. 6d., &c.	...	...	4	0	0			
						202	0	0
On account food first six months	...	...				66	0	0
Labour, &c., ditto	...	...				20	0	0
Capital required	...	...				£400	0	0

Even this fairly moderate estimate need not be all disbursed to start with. Some prefer to have a litter every month or so, others to have most of the litters to come together, saving some labour.

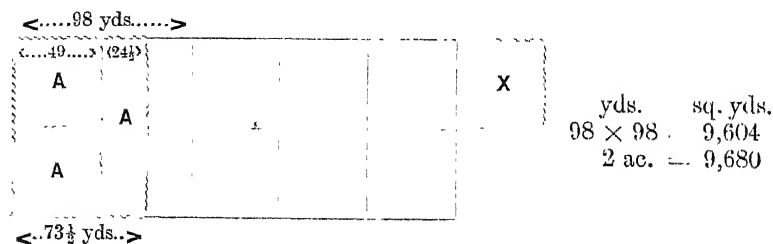
The above £100 would allow for:—

4 in-piggers at £14	...	...	...	£56
4 for service at £9	...	...	...	36
2 weanlings at £4	...	...	...	8
				<hr/>
				£100

It is worth noting that in-pig gilts are generally cheaper in proportion than younger ones of say £6 or £7 at five months old, and that gilts costing £9 or £10, instead of say £7—for less well bred stock—are found to be well worth the extra £2 or £3. Five pens would suffice at first, each in-piggery having its own, or those nearly ready for service could be retained five or six weeks by the seller until served, which is not a bad plan in practice.

Purchase of a boar can always then be deferred, even six months if necessary, and the saving of his keep and depreciation will more than balance service fees paid, though if let at 5s. a service he might be a source of profit. It is desirable to avoid winter farrowings, but hardly possible in practice, after the first year, to have none.

Provision is made for eight half-acre pens, though one or two more may be wanted later, and the somewhat novel plan has been adopted of using hurdles for three pens. Though much more expensive, they have great points over wire, and as they can be speedily erected in any position, or for any shape or size of pen to meet present needs, less permanent accommodation in the way of pens may easily be feasible as compared with the usual unsightly and permanent wiring, not only laborious, but causing in time land foulness and poaching, as well as difficulties with a possible hay crop. About the simplest arrangement is as shown below (oblong pens being optional), though a central road has, of course, advantages if more money is available. A circular lay-out, with pens radiating to a central meal shed, is certainly worth study, but they are seldom used, I have found, and involve some poaching of the ground at the centre by pigs and by attendants, even with much shifting of troughs (and therefore are questionable labour savers), also it may be an extra meal shed, as cartage through a pen in winter is often impossible.



(1) Hurdles for 3 $\frac{1}{2}$ -acre pens (A A A).

3 sides of 98 yards	=	294 yards.
2 sides of 74 yards	=	148 "
1 side of 49 yards	=	49 "

		£	s.	d.
491 = 245 hurdles at 7s.				
delivered	...	85	15	0

Wiring for 5 square pens				
adjoining	637 yards at 1s....	...	31	17 0
	1,128		117	12 0

If wiring for 8 square pens				
only	1,078 yards at 1s....	...	53	18 0
			63	14 0

(2) Wiring for 10 pens at				
at 132 yards per pen ...	1,323 yards at 1s....	...	66	3 0

		£	s.	d.
(3) Hurdles, 3 pens	491 "	85	15	0
Wiring, 7 pens	882 "	44	2	0
	1,373	£129	17	0
		£129	17	0

Ten square pens would involve, in above plan, 13 $\frac{1}{2}$ sides of 98 yards or 1,323 yards net, including gates, allowing for 491 yards of hurdles and 882 of wire; or, following the plan and taking two oblong pens, avoiding an isolated square at X, we again want 1,373 yards, with hurdles as before. Oblong pens, as compared with square, built by themselves, take 245 yards as against 196. Additional square pens to the hurdled section (A A A), will each take 122 $\frac{1}{2}$ yards, as against 147 yards for oblong pens: 1 single square pen added = 49 \times 3 yards, 1 oblong = 98 + 49 yards = 147 yards. As already noticed eight pens is beyond the number required at the start with young gilts, six being recommended by one of our leading pedigree breeders for novices, with 10 slightly older gilts than above allowed for, much, of course, depending on the number which will litter down at the same time. The additional hurdled pens, however, if aspired to, may prove very useful at an early stage if, say, isolation pens are required, and later ten pens may possibly prove a tight fit, especially if the sows pig at short intervals after each other—each then requiring a pen to herself—preferably for some twenty weeks each year, a matter which cannot easily be adjusted entirely to one's wishes it is found in practice, and if provision is made for boar, and fattening pigs of various ages. However, one of the advantages of selling as porkers is that they are cleared off early, and if some open ground can be found for some of the in-pig sows there need be no congestion. Some run of this kind is very desirable, if not essential after a while, as, apart from exercise, pens get very poached in winter and require liming at intervals,

which it is found restores them to a healthy state. Smaller pens than half an acre are quite good for farrowing sows or small lots of pigs, and for sub-division of this kind and all other shifts and temporary expedients hurdles will be found of much use. One acre per sow and produce may, and has been in practice, eventually be found not excessive. The proportion of capital invested in livestock is rather low, but the use of all wire should for ten pens reduce about by £60 the capital outlay on dead stock, and also reduce the depreciation account, while some slight reduction on equipment, if from home-made huts, &c., may perhaps accrue. Another hut or two may even be required, though with a big run one will serve for a number of in-pig sows or many porkers, which points to the economy of some of the pens being over half an acre, a saving, too, in wiring or hurdles, and better for both land and pigs.

EXPENSES AND RETURNS FIRST FULL YEAR.

Food for one Year.

	Meal at £12 10s. per ton or 4 lbs. 3d.	£	s.	d.
130 piglings, 5 weeks to weaning, at 9d. = 3s. 9d.	...	24	7	6
130 porkers, 12 weeks at 3 lbs. per day = 28s.	...	182	0	0
10 sows, 6 lbs. = 3 stone per week = 19½ cwt. per annum (8d. per day = £12 3s. per annum)	...	121	10	0
1 boar, 3-4 lbs.	...	7	10	0
Green food, minerals, and milk	...	3	0	0
<i>Total cost of food</i>	...	338	7	6
<i>i.e., 52s. per pig sold (130).</i>				

Sundry Charges.

Rent and rates, 7-10 acres	...	16	0	0
Vet. £3, labour £26, carriage £10, sundries £11	...	50	0	0
Depreciation on £202 dead stock at 10 per cent. and 15 per cent. on hurdles	...	24	10	0
Ditto on boar at one-third per annum	...	4	0	0
Litter	...	5	0	0
<i>Total first year</i>	...	437	17	6
<i>Deduct for possible reduction of food bill—</i>	£ s. d.			
130 porkers at 9d.	...	4	17	6
10 sows, 8 months, at 1½ lbs. = £2 2s....	...	21	0	0
		25	17	6
		412	0	0
<i>Credit</i> 130 porkers at 100 lbs., at £3 10s.	...	455	0	0
140 pigs, dung at 2s.	...	14	0	0
		469	0	0
<i>Profit</i>	...	57	0	0
If 16 pigs reared per sow (food at 31s., labour, &c.), 3s. - 34s.				
add 30 pigs at 36s. profit, extra ditto	...	54	0	0
TOTAL	...	£111	0	0

The sows have 10 lbs. for 16 weeks (*i.e.*, till weaning at eight weeks), and 4 lbs. for 36 weeks.

The food bill is based on practice, and should prove sufficient for the ordinary breeds, though the quality of the grass and, not least, the strain selected, will influence this, and climatic conditions. Whether, for instance, as much as $1\frac{1}{2}$ lbs. can be saved out of the food by grazing as Dr. Crowther, an authority, suggests, is open to question for as much as eight months. It is easy enough with some pigs on some land in summer, or with acorns about, in other cases rough eatage has been found worth 1 lb. of meal, or less, and this with good pigs, but 4 lbs. may be wanted in winter. If litters are very small even more meal could be saved on the item for piglings, while each pig reared over the very moderate estimate of six to seven will materially help the profits, as the cost at birth (Dr. Crowther's recent maximum estimate under the sty system for litters of eight reared to weaning is 26s.) is diminished for big litters, overhead expenses being practically the same, and the turnover for porkers is rapid. Cost up to weaning of extra piglings up to eight pigs per litter is, therefore, put at 3s. each. On the contra side it may be added that, in practice, it is difficult to sell the manure in places, and a good deal is wasted, in woodland pens especially, though some arrangement might be come to, for residual values, with a farmer landlord (it is extremely difficult to rent land in the ordinary way). And, again, labour will total considerably more if it is all paid for. Depreciation on the sows will have to be reckoned with before long, the annual amount depending much on individuals. The estimate is not a rosy one, it is true, but more money can at times, as recently, be made by buying and fattening rather than breeding; less outlay is required and less labour.

Again, there may be some loss from diseased carcasses or screws, some of which always appear, and on some land it takes over five months to reach the required weight on the outdoor system. The profit is materially affected, in fact, by early maturity and speedy turnover.

If we allow for depreciation in the gilts, after they have appreciated somewhat, we may, perhaps, on our £111 basis make 25 per cent. interest on our original capital of £314; or some 33 per cent. if we go in for all wire. Even then we have allowed nothing for risk.

On the other hand our overhead expenses are very high indeed, as compared with Dr. Crowther's ninth, the hurdles alone increasing depreciation £9 10s. over all wire, and the question seriously arises as to whether the less meal consumed under outdoor conditions and healthier pigs compensates for the higher capital and overhead expenses (perhaps £90 all wire, against £65 for sties) incurred, as compared with sties, supposing labour to be the same in each. There is apt to be, also, considerable difficulty in fattening in the open in winter, and much more dung is wasted. Arable on a large scale is different, but a case like the above should be conned very closely before embarking on

DAIRYING IN NORTHERN IRELAND.

By G. S. ROBERTSON, D.Sc., F.I.C.

DAIRYING in Northern Ireland has for some time played a prominent part in the activities of the North of Ireland farmer. In spite, however, of the unceasing efforts which have been made by the late Department of Agriculture and Technical Instruction for Ireland, the present Ministry of Agriculture for Northern Ireland, and, last but not least, the Agricultural Organisation Society, it must be admitted that Dairying has had a very chequered career. Very different conditions prevail in Northern Ireland from England and Denmark, giving rise to factors which have materially affected the course of the dairying industry. Some explanation of these controlling factors is essential to obtain a true perspective of the problem.

Agriculturally, Northern Ireland is a community of small holders, the majority of the holders owning their farms under the various Land Purchase Acts. As will be seen from the table below, 75 per cent. of the farmers farm holdings of 30 acres or less, and only 11·3 per cent. farm holdings of more than 50 acres.

TABLE 1.
PERCENTAGE NUMBER OF HOLDINGS IN EACH CLASS OF FARM.

						per cent.	
Not exceeding 1 acre	...	...	...	...	...	19·2
Above 1 and not exceeding 5 acres					...	9·8	Holdings under 30 acres, 75·8 %
" 5 "	"	"	"	10 "	...	13·1	
" 10 "	"	"	"	15 "	...	11·3	
" 15 "	"	"	"	30 "	...	22·4	
" 30 "	"	"	"	50 "	...	12·9	
" 50 "	"	"	"	100 "	...	8·6	
" 100 "	"	"	"	200 "	...	2·1	
" 200 "	"	"	"	500 "	...	0·6	

The total number of cows and heifers in milk or in calf in 1923 was approximately 280,000, or 2·1 cows per holding.

The majority of the farmers, it will be realised, are in a very small way. In the Counties of Fermanagh, Tyrone and Armagh, and particularly the two former Counties, store rearing and not milk is the main feature of their agriculture. Milk is, as it were, a necessary consequence of the breeding of store cattle. Little or no attempt is

made to increase milk yields by artificial feeding. The vast majority of the cows calve in the months of March, April and May, ready for the spring and summer grass. With the coming of the autumn, there is a steady and rapid fall in the milk supply. During the winter months the cows must subsist mainly on hay and relatively few turnips. Where artificial foods are used, they are mainly bruised oats and maize meal, a mixture quite unsuitable for a dairy cow. It will be readily understood, therefore, that the coming of winter sees the disappearance of milk from all those districts where the supply of milk to the city of Belfast and the smaller towns of Northern Ireland is not a practical proposition. These facts are well borne out by the following table which shows the monthly intake of milk from a group of three creameries in 1924.

TABLE 2.

MONTHLY INTAKE OF MILK FROM A GROUP OF CREAMERIES—1924.

					Gallons.
January	...	...	...	...	15,131
February	...	...	...	...	15,593
March	...	...	...	...	18,836
April	...	...	...	...	29,392
May	...	...	...	...	52,719
June...	...	...	...	...	78,301
July	...	...	...	...	80,992
August	...	...	...	...	68,342
September	...	...	...	...	49,972
October	...	...	...	...	35,928
November	...	...	...	...	19,343
December	...	...	...	...	14,018

In a nutshell, the system generally practised is summer dairying with the minimum outlay on purchased feeding-stuffs and an almost complete dependence in the summer on grass, and in winter on hay and a relatively small turnip ration. As may be imagined, the summer production of milk is subject to considerable seasonal variations. Thus a wet spring, summer and autumn, such as was experienced in 1923 and 1924, involving as it does poorer feeding pasture, is immediately reflected in a considerable drop in the milk intake of the creameries.

TYPE OF STOCK.

All the various breeds of stock are not well represented in Northern Ireland. Amongst the pure breeds, Shorthorns of the dairy and beef types predominate. There are a few pure bred herds of Kerries, Friesians, Aberdeen-Angus, Ayrshires, and Jerseys. The vast bulk of the cattle are crossbred Shorthorns. The Shorthorn bull is usually the one favoured by the farmer, and nowadays a Shorthorn bull with a milking pedigree is the most popular.

PRODUCTION AND DISPOSAL OF MILK.

The number of cows and heifers in calf in Northern Ireland on the 1st June, 1923, was 280,000. Of these, probably 10 per cent. were suckling calves, cows gone dry, &c., leaving a total of 252,000 for milk production. The total production of cows' milk during 1923-24 was estimated at 107,100,000 gallons, or an average of 425 gallons per cow. The use to which this milk is put is shown in the following table.

TABLE 3.

UTILISATION OF THE MILK PRODUCED IN NORTHERN IRELAND.						Gallons.
Human consumption of whole milk (population 1,280,000)						25,600,000
Utilised by creameries for production of creamery butter...						18,816,000
Consumed by calves...						8,820,000
" " pigs ...						1,350,000
Converted into cream, cheese, &c. ...						3,000,000
Converted into butter on North of Ireland farms...						47,000,000
Loss, spillage, &c. (less than 2½ per cent. of total)...						2,514,000
Total production of whole milk ...						107,100,000

It will be observed that about 18 per cent. of the total milk produced goes to the creameries in Northern Ireland for the production of creamery butter. As a rule farmers who send their milk to creameries deliver it to the creamery or its associated milk collecting depot, every day in the summer time and twice or three times a week in the autumn and winter; and take back with them an equivalent quantity of separated milk, which is mainly used for pig feeding. The prices paid from April to September vary between 6½d. and 7½d. per gallon, and for the period October to March from 8d. to 9d. per gallon. To these prices must be added the value of the separated milk, say 2d. per gallon. It cannot be claimed that the prices are satisfactory or likely to encourage a more intensive production of milk. The manufacture of butter is the most economical method the creameries have of disposing of the milk, and it is not easy to see how, under the present system of seasonal dairying, the creameries can pay more. Their overhead charges run throughout the year, whilst their manufacturing period does not extend much beyond what may be broadly termed the summer months.

The production of butter by Northern Ireland creameries amounts to 70,000 cwts. per annum, a large portion of which (see Table 5) is exported to England and Scotland. Competition from Denmark, and lately from New Zealand, has focussed attention on marketing. The Northern Ministry of Agriculture has made strenuous efforts to improve the quality of the butter manufactured in Ulster creameries. Periodical visits of inspection are paid by the Ministry's Inspectors, who advise Creamery Managers both on the technique of butter manufacture and

on the proper marketing of their produce. A series of Surprise Butter Inspections has been organised, and several of these inspections are held each summer at prominent centres in Great Britain. In order to make sure that the element of surprise is a reality, samples for these inspections are called for by telegram, or may be forwarded by an Inspector of the Ministry. The samples must be taken from the ordinary creamery butter made on the day on which the call is made, and must be forwarded on the same day. Every precaution is, therefore, taken to ensure that the "surprise" sample fairly represents the butter ordinarily produced at the particular creameries. Last year twelve such inspections were held; six in Belfast, two in Glasgow, and one each in Liverpool, Manchester, Newcastle-on-Tyne and Omagh. At the centres in Great Britain the judges for the inspection are selected from among prominent local butter merchants. The butter is graded in three classes, viz. :—

Premium,
Standard,
Below Standard.

A Special Government Stamp has also been instituted, which only those creameries which have been successful in obtaining premium or standard at six successive Surprise Butter Inspections are entitled to use. A condition of the Stamp is that creameries must regularly forward samples of butter to each Inspection, and the Stamp is withdrawn if a creamery subsequently fails to obtain standard marks. The

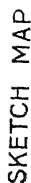


Ministry's Stamp (see illustration) thus affords a guarantee that the butter has been made by a high class Northern Ireland Creamery.

FARMERS' BUTTER.

As will be seen from the map, creameries are more a feature of Counties Fermanagh and Tyrone, and even in Tyrone their distribution is not such as to tap more than a portion of the milk supply of the County.

In South Antrim, North Down, and North Armagh, dairying follows the usual lines associated with milk production for a large city. In the majority of cases, the farmer is a true milk producer; that is to say, he is a breeder as well as a cow keeper. There are a few relatively



SHOWING

COUNTIES

RURAL DISTRICTS

URBAN DISTRICTS

IN NORTHERN IRELAND
(1923)

SCALE: 10 MILES TO 1 INCH.

small areas in the immediate neighbourhood of Belfast where the farmer buys cows as "springers" and sells them off fat to the butcher at the end of the lactation period. The North of Ireland is, however, much freer from that type of dairying than is the case in the Home Counties of England.

Reference to Table 3 shows that 45 per cent. of the milk produced is turned into butter on the farms. Only in rare instances is a separator in use. The practice followed is to churn the whole milk. It is rightly claimed that this method gives a butter-milk of higher feeding value than separated milk; but it is equally true that a greater amount of milk is required to produce one pound of butter. Thus, in the case of creamery manufactured butter, where modern machinery is in use, 2·4 gallons of milk are required for the production of one pound of butter, whereas in the case of the farmers churning whole milk, 2·85 gallons of milk are required. The butter-milk produced by the churning of the whole milk mainly goes to the feeding of calves and pigs. A certain proportion comes into the city of Belfast and other towns in small barrels or churns, where it obtains a ready sale to the bakers, city restaurant proprietors and private individuals. The sale of butter-milk to the urban population of Northern Ireland is a feature which is probably unique. Relatively large quantities of butter-milk are used daily by the city bakers in the baking of soda bread, scones, &c., whilst in the restaurants butter-milk is, so to speak, "on tap," and probably more butter-milk is drunk in the city restaurants than any other single beverage, with the exception, of course, of tea and coffee. The farm butter, which after all forms the greater part of the butter produced in Northern Ireland, is marketed locally, and it is doubtful if any appreciable quantity is exported. The following table gives statistics concerning the production of butter in Northern Ireland:—

			1923 cwts.
Production of butter by creameries (approx.)	...	...	70,000
" " " on farms (approx.)	...	...	147,000
Total production	...	...	<u>217,000</u>

MILK RECORDING ASSOCIATIONS.

A great effort has been made by the Northern Ministry since its inception to stimulate the production of milk. Several schemes are in operation for this purpose, because success does not depend on any one factor but rather upon uniform and steady progress along several lines. Thus the Surprise Butter Inspections and Marketing Scheme, of which an account has already been given, are devised with the object of maintaining a high quality in the butter exported, and it has helped materially to improve the position of North of Ireland butter on the British market. The premium bull schemes, with extra premiums for suitable bulls with milking pedigrees, and the recent Livestock Breeding

Act which makes it an offence for any person to keep a bull which has not been licensed, are all beginning to bear fruit. Probably the greatest benefit will come from the Livestock Breeding Act, which is quickly eliminating the "Scrub Bull." Although under the various livestock schemes prominence is being given to milking qualities, every effort is being made to see that milk is not being obtained at the cost of a calf unsuitable for beef production purposes.

Whilst such schemes are capable of producing rapid improvement, they can only do so if they are accompanied by an educational effort which will convince the small farmer not only of the wisdom of the schemes, but the desirability of bending his own efforts towards the desired end. At present, the Cow Testing or Milk Recording Associations, with their competitions between members and their inter-Association competitions, may be looked upon as the main educational effort as far as the farmers, apart from their sons and daughters, are concerned. In broad outlines the Milk Recording Associations are on similar lines to those in England, but there are one or two points of difference which are worthy of notice. Grafted on to the Milk Recording Scheme is a Central Butter Fat Testing Scheme. All cows entered in Milk Recording Associations are under the butter fat scheme, and samples are taken morning and evening at intervals of not more than six weeks. All the butter fat determinations are made in the milk testing laboratory at the University. Every member of a Milk Recording Association receives a report from the milk testing laboratory setting out the morning and evening yields of milk on the day the samples were taken and the average percentage of butter fat in the milk of each of his cows. At the end of the milk recording year each member receives a statement which, in addition to giving the yield of each of his cows, sets out the weight of butter fat produced by each cow and the average percentage of fat in the milk of each cow. Some idea of the growth of this movement may be obtained from Table 4.

TABLE 4.
SHOWING THE DEVELOPMENT OF MILK RECORDING ASSOCIATIONS
IN NORTHERN IRELAND.

Year.	No. of Associations.	No. of Cows.	Average yield of Milk per Cow for complete lactation.	Average per cent. Butter Fat.	No. of Samples Tested for Butter Fat.
			gallons.		
1921	6	1,244	540.6	—	—
1922	13	3,109	542.7	—	—
1923	17	4,338	610.4	—	—
1924	34	7,103	593.5	3.68	61,594
1925	42	8,113	Not yet available		84,232

The figures given in Table 4 do not include pure bred cows, which come under a separate scheme. It is true, of course, that 8,113 cows represent only between four and five per cent. of the total number of cows, and it is obvious that there is still abundant scope for growth. It should, however, be noted that the 8,113 cows are owned by 1,523 farmers, an average of slightly over five cows per farmer. That figure alone gives some idea of the difficulties which must be encountered in organising Milk Recording Associations in Northern Ireland. But the fact that it has been possible to increase the number of Associations from six in existence, when the Ministry began operation on January 1st, 1922, to 42 in 1925, and to bring in over 1,500 small farmers, emphasises the success with which this work is being rewarded. It may truthfully be said that three of the important factors which contribute to a successful dairy industry, namely, Breeding, Recording and Marketing, are making considerable progress.

There is, however, a further factor, namely Feeding, and it may be asked what progress is being made in this direction. No system of Breeding and Recording will produce the heavy milking cow. Having bred the milking cow, she must be fed accordingly, and Recording or Testing is the means of determining the success of the breeding and feeding operations. So far, it has not been possible to graft on to the Milk Recording Associations a Rationing Scheme. The difficulties are great, but not insuperable. Small farmers cannot order supplies in bulk; prices for concentrated feeding stuffs are at least £1 per ton higher than in England, and butter, at the moment, is the main outlet for the milk. The ground is, however, being prepared by lectures on the feeding of dairy cows to members of Milk Recording Associations, and a Rationing Scheme will be the next step forward.

THE FUTURE OF THE DAIRY INDUSTRY.

In Table 5 is set out particulars of the Import and Export of butter from Northern Ireland for the year 1923.

TABLE 5.

NORTHERN IRELAND EXPORTS AND IMPORTS OF BUTTER.									
EXPORTS.					IMPORTS.				
</									

Northern Ireland cannot, in the true sense of the word, be called a dairy produce exporting country. True, there is exported in the summer months 70,000 cwts. of butter; but, on the other hand, there is imported during the same season a corresponding quantity, namely 70,000 cwts. from the Free State and a further 55,000 cwts., mainly from Denmark, during the winter months. These curious facts require some explanation. The position, briefly, is that Northern Ireland during the summer dairying season manufactures just sufficient butter to meet its own requirements. As, however, a large proportion of the creamery butter is exported to Great Britain under the premium butter scheme, the shortage is made up by an almost corresponding importation of creamery butter from the Free State. This is made possible by the higher price paid in Great Britain for North of Ireland creamery butter, compared with Free State creamery butter. During the winter months, production falls far short of requirements and as a consequence no less than 55,000 cwts. are imported from Denmark, &c.

It cannot be claimed from these figures that the dairying industry is in a satisfactory state. Its seasonal nature has serious disadvantages. Butter importers in England and Scotland require regular supplies all the year round. They naturally tend to favour exporting countries capable of sending supplies of uniform quality regularly, and are consequently reluctant to change to Irish butter in the summer, even if the butter is as good as the competing Danish and New Zealand supplies. It is probably this state of affairs as much as anything else, which tends to keep down the price of Irish creamery butter, and, consequently, the price the North of Ireland creameries can afford to pay for summer milk. It has already been mentioned that the overhead expenses of the creameries are running throughout the year, whereas production is seasonal, and it may be asked—What is the solution of the problem? Two methods are possible:—

- (1) Winter dairying, which in certain districts shows marked signs of development.
- (2) A big increase in the production of summer milk.

If dairying is to survive in Northern Ireland, one or other, or a combination of both these methods must be adopted, but it is as yet by no means certain which of the two methods will be followed. Probably, the second method offers the greatest prospects at the moment. The difficulties in the way of an immediate advance along the lines of winter milk production have already been indicated. Briefly they are as follows:—

- (1) Few of our farmers in creamery districts have practical experience of winter milk production, and it will take time for the necessary educational effort to be effective.
- (2) The purchase of cakes and meals necessary for winter milk production, and at prices appreciably in excess of

those ruling in England and Scotland, appears to our small farmers to involve a greater outlay of money than they can afford.

On the other hand, if summer dairying is to solve the problem, it involves increasing production to such an extent that a surplus for cold storage will be available for unloading in the British market during the winter months. Such an increase in production, although it would not keep the creameries in full working order during the winter months, would, by increasing the output, reduce the proportion that the overhead charges bear to the total cost. The elimination of cows with a low milk yield, together with an increase in the cow population are advances which could be rapidly developed, particularly if a systematic attempt was made to improve the grass land. Development of the heavy milking cow would necessitate artificial feeding during the late summer and autumn months, and sooner or later winter dairying would follow. There are already signs of such a development. Groups of farmers are to be met with who, either because they are anxious to market their young stock in excellent condition (and in the case of heifers and bulls, with a milking pedigree behind them), or because they are convinced that they will lose less by feeding an 800 gallon cow than a 400 gallon cow, have begun to use balanced rations for their cows and thus extend their milking period well into the winter months. Many, indeed, are beginning to calve their cows in the autumn. At the moment, their prospect of disposing of the milk to the creameries at a price which will leave a profit is not very bright, and it is possible they may have to bear the sufferings of pioneers for some time.

The developments, of which a sketch has been attempted in this article, do give hopes of a rosier future for the Dairy Industry in Northern Ireland. What does seem to be most needed at the moment is an agreed line of development, followed by a sustained effort, by the farmers, the creameries, the Milk Recording Associations and the Ministry of Agriculture, to carry the policy into practical effect.

THE WEST OF ENGLAND CONFERENCE, 1925.

By ELDRED G. F. WALKER.

THE West of England was unanimously selected for the 1925 Conference, with Bristol as the Headquarters. Mr. S. R. Whitley was the Chairman, assisted by a strong local Committee, the possessors of unbounded enthusiasm, and such powers of endurance that they must be classed A 1; whether this was due to the consumption of milk or to that subtle but delightful beverage, cider. Anyway, they just expected their visitors to be equally fortunate, as a preliminary glance at the programme revealed the fact that the average road journey for each day just exceeded 100 miles. In army phraseology, this "put the wind up" those that were unaware of the admirable means of transit that exist in the Bristol District. Headquarters were made at the Royal Hotel, College Green. There was a very active Local Committee, and it was arranged that a guide well acquainted with the route should be in each of the chars-a-banc provided by the Bristol Tramways Company. The party, with local additions, kept at an average of about 80. They assembled on the afternoon of Friday, May 15th, and in the evening were invited to a reception in the magnificent Municipal Art Gallery, by the Lord Mayor of Bristol, who was accompanied by the Lady Mayoress.

The Lord Mayor gave them a cordial welcome as representatives of one of the most fascinating occupations. He reminded them of the attractions of the city and district, Somerset being famous for its cider, Devon for butter and cream, Wilts for cheese and hams, and Gloucestershire for an aristocratic breed of pigs, the Gloucester Old Spots. (Laughter.) Bristol was famous for a special kind of "milk" - (laughter)—which for centuries had been distributed to all parts of the world. From what he knew of the hospitality of Bristol, no doubt they would not be allowed to return home without judging for themselves the palatable qualities of that particular "milk." (Laughter.) He hoped their visit would be enjoyable and profitable, and expressed the opinion that in farming and dairying there was wonderful scope for co-operation. There was no industry in which co-operation could be more easily effected than in farming, and he was certain as time went on more attention would be paid to it. By co-operation great results could arise, beneficial to the farmer and those he employed; and he hoped the spirit of co-operation would grow in the primary industry of the country as in other industries.

"Bristol Milk" is a name given to a famous local brown sherry that has been for a long number of years matured in wood before being bottled.

Mr. S. R. Whitley, Chairman of the Conference Committee, acknowledged the kindness of the Lord Mayor in giving an official municipal reception. They had come to enjoy themselves, to instruct themselves, to help, and be helped. Upon milk depended the welfare of the young. We could not have a Grade "A" population on a Grade "C" milk supply—(hear, hear)—and those in cities were interested with dairy farmers in the improvement and increase of the milk supply. He was glad to know that Bristol was doing big things and aiming high on the question. There was big room for an increased production. He mentioned that he was an old Cliftonian—the best school of all—and when the victorious Generals came back from the War four were sitting in one carriage, two of whom were at school at Clifton College. (Applause.) Dairy farmers were closely linked to the cities, and the closer the better for all of them. (Applause)

CLEAN MILK SUPPLY.

Dr. R. A. Askins, Deputy Medical Officer of Health for Bristol, read a paper on "The New Era in Milk Supplies." He said a revolution in the methods of production and distribution of milk was shortly dawning. The difficulty in producing clean milk was that, in addition to being the most wholesome article of diet, milk was, unfortunately, the most delicate one, and still more unfortunately it was the ideal medium upon which germs grew and flourished. Many of those germs caused disease, but others destroyed milk by souring, and probably the cost of the loss through the latter cause in England in a year was a considerable portion of £1,000,000. In outlining a few of the essentials of a clean milk supply, Dr. Askins said a cow should be healthy in order that the milk might be good and free from tuberculosis. The ideal procedure was to have the cows tested periodically by tuberculin, and to remove from the herd those that reacted. He strongly recommended the periodical examination of cows by a veterinary surgeon. By those means the danger of milk being tubercular would to a large extent be removed.

The best thing was to have a separate milking shed. If, however, that was not possible, an ordinary cowshed could be made fairly satisfactory with but little expense. It was essential that the floor should be of impervious material, such as concrete, and the walls cemented to a height of four or five feet. The standings should be raised above the ground level and not be too long. Behind the standings should be a good deep gutter. Good ventilation and light were absolutely essential. Three square feet per cow should be regarded as an absolute minimum, and the light arranged so as to fall on the hind-quarters of the cow. Ample ventilation should be supplied through the windows. Manure must be removed at least twice a day and stored at a distance, not just outside the cowshed. A separate milk-room was necessary for cooling; it need not be very large, but must be well-lighted and ventilated. The floors and, at any rate, the lower

part of the walls, should be of cement or other impervious material. An ample water supply was essential. In fact, it was desirable to keep the floor of the milk room always slightly wet.

UTENSILS.

The modern milking-pail, which was partly covered and had an opening as small as possible, must be used. If milking was performed in the cowshed, soiled litter must be removed or brushed on one side before anything was done. The hair on the udder and in the immediate neighbourhood must be kept short by means of hand-clippers. The hind-quarters of the cow must be kept carefully cleaned, a currycomb and stiff brush being used for this purpose. The udders and surrounding portions must be washed immediately before milking. The hands of the milker must be washed in soap and water, and a clean overall put on before milking.

All this might sound expensive in time. In actual fact, after a little practice, three minutes at the outside per cow was all that was required. Immediately after milking, the milk must be strained and cooled to about 50 degrees Fahrenheit, the best cooler being one which had wide corrugations which allowed of adequate cleaning. The 17-gallon churn, owing to its length, was most difficult to clean and sterilise. Also, it is very heavy to handle. The 10-gallon churn was infinitely better, and more economical of space during transit. There should be no holes in the lid.

All the utensils used in the process must be sterilised, and sterilising must be done by steam, as scalding was not satisfactory. It could not be too often repeated that a milk-pail or churn that looked clean to the eye might be swarming with bacteria, and it was only by sterilisation that the utensil could be rendered germ-free. One of the commonest causes of the souring of milk was the use of utensils which had not been sterilised, even though they might look fairly clean. Objection might be raised that a sterilising apparatus was expensive. That was a mistaken idea. For a large farm it might, perhaps, be necessary to buy sterilising apparatus costing a good deal more, but very simple and efficient sterilisers could be made by fitting up over the farm copper or galvanised tank or even an ordinary sanitary dust-bin. A Primus stove could be used as a simple and economical source of heat.

Grade "A" milk could be introduced by following the precautions outlined above. The disastrous results of milk containing germs were, practically speaking, avoided, and the result would be an excellent milk of a very pure and wholesome standard. The keeping quality would be enormously increased, and the monetary loss through souring avoided. The extra cost was very small, and Grade "A" milk could be produced and retailed at an additional cost of a penny per quart. The ideal to be aimed at was a universal supply of tuberculin tested milk, and he had little doubt that it would ultimately become possible.

The demand for Grade "A" milk had recently increased, and was still increasing in Bristol, and he would like to express his strong sense of appreciation of the work done by certain milk producers in the neighbourhood and by certain retailers in Bristol, with a view to encouraging a clean milk supply. The legal powers of local authorities wanted to be considerably extended, and he hoped to see the long-deferred Milk and Dairies Bill, 1915, in force the following September.

In a final word of warning to the public, Dr. Askins said it was necessary for the public to realise that because milk was in a bottle may, or may not, mean anything. They knew of very dirty milk that had been sold at an extra cost without any precautions being taken which were essential for the production of clean milk. For that reason, the Government had designed certain standards of milk, namely, Certified milk, Grade "A" milk, and Pasteurised milk. If they obtained one of those they were buying an article that was produced under Government regulations, which were a guarantee of quality. It was easy to know them, because the words "Certified," "Grade A," or "Pasteurised" were marked on every bottle. If that was not the case, they might be buying anything.

Dr. Askins having been thanked for his paper, and the Lord Mayor for his hospitality, the party returned to their hotel preparatory to a most arduous day. In the morning, at breakfast, interest centred in the local newspaper, which had reproduced a group of the members when the Conference was held in Somerset 32 years previous. It so happened that Mr. Robert Long, a member of the present party, was also present at the previous Conference. Then it was fashionable for men to wear whiskers. Now, to be in the fashion, he was without them.

SATURDAY'S TOUR TO LORD BLEDISLOE'S.

There was little time to discuss Mr. Long's hirsute appendages, as there was an exceedingly long journey ahead of the party. They were soon seated quite comfortably in four Bristol chars-a-banc and speeding up through the County of Gloucester. There was a short stop at Gloucester to pick up more of the party, and the journey was continued on the other side of the Severn until the next halt was made at the Bledisloe Fruit Farms. Here Lord Bledisloe met the party, and personally showed them over his highly practical and well laid out cider house and cider-making plant. The fruit farm comprises some 53 acres, and fruit bottling is carried on here.

THE FARMS.

The journey was then resumed to the Bledisloe farms. The original home farm, now known as Old Park, was farmed by Lord Bledisloe for many years before the War, and he kept there a fine herd of dark red beef Shorthorns, many of which were sold at good prices into the Argentine. Since the War he has started there (and subsequently at Holms Farm) a herd of pedigree dairy Red Polls, including several

cows giving upwards of 1,000 gallons a year. This farm has some fine old pasture land, mainly on the old Red Sandstone. All the other farms he has taken over since the War from various farm tenants, several of them in a very foul condition. These included Holms Farm, Dairy Farm, under a noted Swedish farm manager, Mr. A. Nilsson; Cross Farm and Vine Hall Farm, Aylburton; and Redhill Farm, which was previously a small holding of 60 acres in the hands of a retired tinplate worker, and is now run as a pig farm in conjunction with an adjoining 64 acres of wood containing a large number of oaks. On the last-mentioned farm are now about 1,000 pigs, about 200 being pedigree Large Blacks and the remaining 800 first cross pigs raised for bacon requirements, and their mothers, which are mainly pedigree Large Blacks and Middle Whites, with a sprinkling of Gloucester Old Spots. The boars used for bacon production are pedigree Middle Whites and Large Whites of well-known prolific strains. Situate on the pig farm, above a well-equipped meal-house, is a very perfect little milling plant, provided by Messrs. Turner & Sons, of Ipswich, which is operated by electricity obtained from the West Gloucestershire Electric Power Station about a mile away, and which not merely grinds barley, beans, and peas for pig food, but also converts, with the help of a miniature dressing plant, Yeoman wheat grown on Bledisloe Farms into wholemeal flour, which is subsequently baked into delicious loaves in the small oven which is used for turning out pork pies at the bacon factory, and sold commercially in Lydney and Aylburton parishes.

Holms Farm has an area of 189 acres, including an arable field of 40 acres (the largest arable field in the district), upon which mixed crops, consisting of beans, oats, and vetches are largely grown for filling a modern concrete silo erected upon the farm three years ago. The cattle on this farm, which are mostly Red Polls, with a few Shorthorns, are fed largely upon silage for the purposes of their maintenance ration. Adjoining the buildings is one of the county experimental cider orchards, which was stocked about 18 years ago with selected varieties of cider apples from Long Ashton.

Dairy Farm, near Lydney Church, which consists of 368 acres, and includes some of the finest grazing land in the county adjoining the estuary of the Severn, is managed with Little Allaston and Shelfridge Farms (each situate about two miles away) by Mr. A. Nilsson, who for several years was manager of Mr. Peter Ronholt's famous farm at Tibbygaard, near Haslev, in Zealand, Denmark. This farm was taken over in a very foul state about 15 months ago, and has since been equipped with a first-rate modern cowshed which accommodates 70 non-pedigree dairy Shorthorn cattle, and which is equipped with every labour-saving appliance, as well as with every modern device for ensuring cleanliness of milking and purity of milk. The cow standings are arranged so that the cows stand head to head with a 3 ft. passage between them, where hay and whole roots, after conveyance by a mechanical carrier, are thrown for the cattle to help themselves. The standings are constructed of cork bitumen blocks, which

combine warmth with facility of cleaning. In the yard is a large covered midden for protecting the farmyard manure, with a capacious liquid manure tank underneath it.

About one and a half miles away on the other side of Lydney Park is Cross Farm, the farmhouse being in the centre of the village of Aylburton, which is Lord Bledisloe's estate village. At Cross Farm are the cheese dairy, bacon factory, and the poultry farm. The cheese dairy is at present receiving milk from Old Park, Holms Farm, Dairy Farm, and Vine Hall Farm to the extent of from 150 to 180 gallons a day, and converting it into Cheddar and Caerphilly cheese. Miss Clyde, one of the most successful of the students of the Somerset Dairy School at Cannington, Bridgwater, is now in charge there.

From the floor of the cheese dairy the whey is carried by gravitation in a sanitary pipe to a mealhouse, where it is mixed with barley and bean meal for the feeding of about 150 pigs which are going through the last stage of fattening for the adjoining bacon factory. Each pig receives about three-quarters of a gallon of whey. These pigs come down from Redhill Farm at four and a half months, and are killed in the bacon factory at six months old, at which age they are expected to have a dead weight of about 8 score. The bacon factory is capable of dealing with about 80 pigs a week, most of which are converted into Wiltshire sides of bacon for the South Wales trade, but some are utilised for various pork products, including sausages, brawns, luncheon sausages, polonies, pork pies, sausage rolls, and similar commodities. Mr. J. Greenaway is in charge of the bacon curing, and Mr. A. E. Craig of the "smalls" department. The bacon factory is equipped with two refrigerating chambers with thick cork insulated walls, the refrigeration being effected by an ammonia compressor plant operated by an 8-h.p. oil engine, which is about to be replaced by an electric motor. Adjoining the bacon factory is the bakehouse, where the pork pies and bread are baked, the front part being also a shop for retail sales to residents in Aylburton. In the three orchards above Cross Farmhouse, a large poultry farm has lately been established, under the management of Mr. Charles Mason, the breeds chosen being White Wyandottes, Light Sussex, and Khaki Campbell ducks. From the bacon factory three vans carry bacon, various pork products, cheese, bread, eggs, and other produce every day to the villages in the surrounding area as well as to the town of Chepstow, where a good trade is done.

Finally, there is in the middle of the town of Lydney a smart and attractive shop known as "Bledisloe Shop," under the management of Mr. W. Baker, where the various products of Bledisloe Farms are retailed to numerous and increasing customers, who seem to prefer fresh, unadulterated British food raised in their own neighbourhood to similar products of foreign origin to which they were previously accustomed.

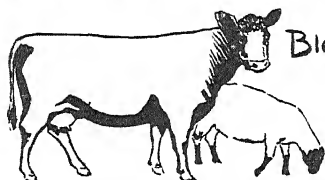
On arrival at Redhill Farm, Lord Bledisloe bade the party welcome. On his farms, he said, there were no fancy buildings or stock—they were run on commercial lines. There had been losses whereby they

had gained experience, and they had done their best to obtain all the profit possible for the producer without fleecing the consumer. This could be done only by going to the consumer direct. The farms would not produce all the barley essential for feeding the large number of pigs, and they were building a 200-ton silo.

A HOME-GROWN LUNCH.

At Lord and Lady Bledisloe's invitation, many of the party, for the first time in their lives, partook of a home-produced lunch, washed down with home-grown cider. The menu cards had even been designed by the Hon. Miss Ursula Bathurst. It was a banquet such as a knight

Visit of British Dairy Farmers Association to Bledisloe Farms May 16th 1925.



Luncheon-
(all home grown)

Brawns.

Venison Pasties.

Luncheon Sausages.

Kerry Hill Mutton.

Pork.

Hams.

Chicken & Salad.

Yeoman Bread & Scones.

Jersey Butter.

Cheddar, Shilton & Coerphilly
Cheese.

Jam & Rhubarb Tarts.

Bledisloe Cider.



of old would have delighted to put before his visitors. That home-grown and home-ground wheat, Yeoman No. 2, and home-baked bread, how soft, sweet, and pleasing to the palate, and then a cut of ham; was it not cured as it should be? Mr. S. R. Whitley, in a brief speech, referred to the interest Lord Bledisloe had taken in his farms. He started from the bottom to make them yield their greatest production. There were but few landlords who were carrying out such a wise policy. The toast of "Lord and Lady Bledisloe" was given with musical honours. Lord Bledisloe, in reply, said his endeavours had been to produce two main lines—meat and milk products. These subsequently met at Cross Farm. The pigs were brought there for topping up by means of the whey from the make of cheese being mixed with the meal, and then the pigs were turned into bacon. The party next went over the various farms, well kept in every way. On his pig farms Lord Bledisloe is fast proving that second cross pigs are of small utility value compared with the first cross. After going round the farms we saw on one of them the following notice:—"Bledisloe Farms. Cowhouse notice: Milking must not commence later than 5.30 a.m. No smoking on these premises or during working hours.—Bledisloe."

The old adage, up in the morning, boys, is evidently believed in at Lydney. Before the party went to Lydney Park for tea they paid a visit to the British Roman Camp, the history of which was lucidly explained by Lord Bledisloe. The return journey was by way of the Forest of Dean, and Bristol was reached shortly after 9 p.m.

There was little rest for the Sunday. Surely, never has a more picturesque tour been arranged in any of the previous Conferences. After breakfast, the party went across that beautiful civic park, Durham, down to the Sea Walls, and admired the splendid view of the Avon Gorge. The Suspension Bridge was crossed, thence to Belmont. The Vale of Ashton was beautiful in its greenery. The delights of Brockley Combe appealed to the visiting party immensely. Over Broadfield Down, thence by way of Butcombe to Blagdon Lake. A halt was made at the Rock of Ages in Burrington Combe. Road widening may be necessary for tourist traffic, but, alas, how it spoils this locality! Cheddar was reached shortly after mid-day. After an excellent lunch at the Cliff Hotel, Mr. W. Ozzard gave an address on the antiquities of the district. A start was then made across the moor to Glastonbury. As it was not possible to enter the Abbey ruins on Sunday a visit was made to Mr. Mapstone's Abbey Farm, where the Abbey Barn was viewed. Mr. Mapstone, who is one of the few farmers who have filled the office of Mayor, extended to his visitors the hospitality of his cider cellar. Then by courtesy of the Museum authorities the party were enabled to view the wonderful treasures contained therein. After tea at the Pilgrim Inn the tourists proceeded by way of Pennard to Shepton Mallet, thence back over Mendip to Bristol.

MONDAY'S TOUR.

The party were early astir on the Monday morning; the Mendip air had endowed them with an appetite for Lord Bledisloe's sausages, which he had sent over for their delectation. The order now was to climb the Cotswolds.

The first few miles were somewhat uninteresting, through the heavy boot-making district of Kingswood. After leaving Warmley, the district opened up, and on passing through Wick it was recalled that it was from the rocks near here that the one-time famed Bristol stones were obtained. A short drive led us to Mr. H. Lear's Bottom Farm, Doynton. His herd of pedigree dairy Shorthorns was started about 25 years ago by purchases from the late Mr. G. F. King's and Mr. H. Butler's herds. The farm, which comprises 220 acres, is very open and exposed, being 400 feet above sea level. Young stock are run in the open during the winter. The milk from the herd is sold during the autumn and winter, whilst Double and Thin Gloucester cheese are made during the summer, Mrs. Lear being a successful prize-taker at the Dairy Show and elsewhere. Milk recording was started in 1918, coincident with the formation of the Bristol and Bath Milk Recording Society. In 1922-23, the cows and first-calf heifers averaged 7,126 lbs. of milk; in 1923-24, the herd, which included nine first-calved heifers, averaged 7,130 lbs. Nearly all of the cattle have been bred on the farm. Mr. Lear rears most of his young bulls, and disposes of them at the Bristol Shorthorn sales in February. The following averages are interesting: 1920, £77; 1921, £82; 1922, £50 10s.; 1923, £57 15s.; 1924, £47 10s.; 1925, £50 4s.

A climb was then made over the escarpment of the Cotswold Hills; it was a bit stiff until Toll Down was reached. From here for several miles the farming is principally arable, and the soil brushy. Soon the big tree belts that screen Badminton were seen; they are especially beautiful this year in their Spring dress. After leaving Crosshands, the first large place was Didmarton, while a little farther on was that lovely country seat, Weston Birt, where Queen Mary spent her holidays a year or two ago. Still a little farther on the thin taper spire of the Church at Tetbury is seen, and leaving Tetbury, a small roadside inn, bearing the unusual name of "The Trouble House," was passed; the name originated in the days of agricultural labourers' riots against the introduction of machinery on the farm. The soil is now very thin. On approaching Cirencester, the fine pile of buildings of the Royal College of Agriculture is seen; one of its most prominent students in the old days was Lord Bledisloe. In Cirencester, the quaint old Abbey Church, with its flying buttresses, commanded attention.

Our first call in Cirencester was at Major Dugdale's—the Abbey.

Before partaking of lunch the party had a few minutes to spend in the lovely gardens and grounds of the Abbey. Here were seen carefully preserved remains of Roman workmanship; and the rock garden was not missed. Truly it was a lovely spot.

After luncheon, Mr. Robert Long said that they could not part without proposing a hearty vote of thanks to Major and Mrs. Dugdale for inviting the party to their lovely home, and placing at their inspection the fine herds of Red Poll cattle and Large Black pigs. Major Dugdale replied, and referred to a letter he had received from New Zealand acknowledging the wonderful milking proclivities of the Red Polls in that country.

It was but a short way to Whiteway Farm. Here had been founded one of the finest herds of Red Polls outside of East Anglia, there being a considerable number of 1,000-gallon cows, and that wonderful bull, "Neston Gloucester." The Large Black herd of pigs was on view. That fine boar, "Cornwood Donard," for which Major Dugdale gave well over 300 guineas at the Cambridge Royal Show, was admired. Too much time could not be spent here as the Whiteway Poultry Farm was next to attract a deal of attention, as did its representative exhibit at Wembley Exhibition. During the last three years birds from this farm have obtained over 250 awards at leading utility shows throughout the kingdom. The 1923-24 successes included three gold, two silver, and one bronze medals, and many certificates in official laying competitions. All birds on the farm are trap-nested. The two mammoth incubators used have a capacity of 10,200 eggs, and the flock of spring chickens revealed how successful the hatch had been. The principal breeds kept are White Leghorns, Light Sussex, Black Leghorns, as well as Barnevelders, a breed that is fast establishing itself in the West of England. Khaki Campbell ducks are also kept in specially designed sheds. Over 8,000 birds were shown, and poultry experts from different parts of the kingdom admired their hard, healthy condition. Incidentally, the Suffolk representative, Mr. Clement Smith, indicated to the rest of us that the two Suffolk rams were of the right kind to breed winners in the show rings.

After leaving Major Dugdale's the route was through most typical Wiltshire country, and a stop was made to view Malmesbury Abbey. It was then a speedy run through the beautiful village of Grittleton to reach Mr. E. G. Harding's at Foxcote. Here, Mr. Harding had invited all his brother farmers round about, and his landlord, Sir Audley Neild, the finest squire in Wiltshire. Would that all landlords kept their tenants' farm buildings in such excellent fettle as does Sir Audley Mr. Harding's. But then as a tenant Mr. Harding puts in them cattle right worthy of the buildings. Then will not the name of Harding be long associated with the production of Cheddar cheese, the finest the world ever tasted? In fact, it was so good that the Scotsmen came down to learn how to make it. Now, Cheddar cheese cannot be made without good dairy cattle. After partaking of tea—even our Cotswold whetted appetities could not dispose of the last cake—we went to see the cattle. First, a grand bunch of Shorthorn yearlings on the lawn. They were an adornment to it. Then out to look at the herd of dairy cattle, over 50 grazing on luxuriant pasture

and carrying veritable cheese tubs beneath them. A Northern dairy farmer was so spurred as to offer 50 guineas each for 50 right away. Mr. Harding received the offer with a smile, as well he might, for has not Mr. Harding produced his 2,000-gallon Shorthorn cow, and there are but few of them about. Yet how many farmers would jump for joy at receiving a fifty-fifty offer. We saw two-year-old heifers and heifers with their first calves, and all carrying that beautiful bloom. The party would have remained until night admiring this herd, but the guides in charge grew anxious. Before the party left, however, that shrewd Lincolnshire farmer, Mr. John Evens, perhaps the best-known breeder of Lincoln Red Shorthorns in the world, had this to say, in moving a vote of thanks to Mr. and Mrs. Harding for their hospitality: "That Mr. Harding's was one of the best herds of dairy Shorthorns he had ever seen kept under rent-paying conditions. They might talk of the deeds of monks and abbots of old, of ancient architecture, but he was more delighted to have seen that beautiful herd amidst such delightful surroundings." The party then speeded away, via that lovely old-world spot, Castle Combe, but found its poetry washed out as they once more climbed up Marshfield way and then down over Tog Hill and back to Bristol.

TUESDAY'S TOUR.

During Monday night there was a fine display of nature's fireworks, and a real West of England downpour accompanied it. Happily, Tuesday morning was much brighter. Once again over the Mendips into that most delightful portion of Somerset, Wells. The first call was at the St. Cuthbert's Paper Mills at Wells, a typical example of how trade can be conducted under the healthful conditions of country life. Inside the buildings can be seen the big stores of grass from which the paper is made, because it is not common wood pulp which goes in here. The material seen, the usual processes of boiling, washing, bleaching, and making on the paper machines follow one another much as in other paper mills. Absolute tidiness and cleanliness is the rule throughout.

On the return from St. Cuthbert's the party were shown over the Cathedral, the Bishop's Palace, and other items of the antiquarian life of Wells, by Canon Alcock.

The party were the guests of Mr. A. J. Clare at luncheon in the Guildhall. The Mendip air had lent zest to the appetites. Mr. Sidney Edwards, in proposing a vote of thanks to Mr. Clare, referred to the delights of visiting such a fine old city.

Mr. Clare, in reply, said that in his opinion the time had arrived when only English made Cheddar cheese should be sold as Cheddar, and outside stuff should be prohibited.

A move was then made to Mr. A. F. Somerville's Dinder. The owner had returned from the Weston Show to receive his visitors, who were soon lost in admiration of the magnificent cedars, the splash of

the waterfall in front of the serrated ridge of Dulcote rocks. Mr. A. F. Somerville founded his herd of Jerseys in 1889 by purchases from Mrs. McIntosh's herd; since then he has been a very successful exhibitor, both with his Jerseys and with the produce made from them. We were shown, firstly, his stock bull, whose dam has won three gold medals in butter tests, and his small but select herd of cows. Mr. Somerville keeps correct records, and his average has been 18.33 lbs. of milk to produce one pound of butter, and 6.38 lbs. of milk to make one pound of cheese.

The journey was then renewed by way of the pretty valley of Croscombe and Shepton Mallet to Doulting, and then they arrived at Mrs. Sword's. The entrance to Mrs. Sword's Westcombe House, Batcombe, was by way of an old lodge, the drive bounded by yew trees, with the rocks cawing overhead, and the trout flapping in the stream that flowed from beneath that old ivy-covered bridge. Firstly, we had to partake of tea beneath a wide-spreading oak on the neatly kept lawn. Now, Mrs. Sword is one of those indefatigable ladies who, by the closest attention to the multiplicity of their duties put mere man to shame. Amongst the one and other items she takes in hand are those of School Manager, Pensions Officer, and Lady Visitor to the Poor Law Institution. She serves on the Education Committee, is Churchwarden, attends to children's welfare, and is Secretary of the local branch of the Women's Unionist Institution, and yet with all this, she has founded and personally superintends the management of her herd of Red Polls, which will certainly make a name for itself in the West Country. One of her pet cows is "Chaw Hill Amber," which took third prize at the Bath and West Show.

After leaving Mrs. Sword's the next call was at Mr. John Day's. The drive through Evercreech and along the roads to Mr. John Day's at Huxham was much appreciated. Mr. Day had a herd of between 60 and 70 excellent dairy cows grazing amidst the golden buttercups of his rich pasture. Though some of his cattle were at the show, he led us from field to field until we had seen a hundred at least of most typical milking Shorthorns, which were producing his Grade "A" milk. A visit to the farmstead revealed how he had grappled with the problem of converting olden-time designed cowsheds to a further period of useful service, whilst introducing the most modern ideas as regards extensions. His refrigerating plant was installed so that the milk can travel in the best condition. It cost some £200 to instal. This farm was so attractive, that the party overstayed the time allotted to it, and this resulted in a late return to Bristol.

WEDNESDAY'S TOUR.

Some of the party had expressed a desire to see the country seat of Lord Strachie, and accordingly, the tour had to be altered somewhat, for did they not know how well Lord Strachie had championed their cause in the Legislative Assemblies of the Kingdom? The

morning was gloriously fine, with visibility good. Soon we speeded past the old turnpike house at Stanton Drew into Chew Magna, with its noble tower. A turn up beside Knowle Hill, and the superb trees that embower Sutton Court were the admiration of those from the North. The nine elms at Widcombe, and thence along by the Prince of Wales' property; the quaint clipped yews at West Harptree, and thence along under the northern slopes of the Mendips, clad in their sheen of green.

Soon Langford Court Farm was reached, and many a dairy farmer heaved his deepest sigh of regret that his yards at home were not so neat and well kept. Mr. Griffiths soon led us to that noble herd of Shorthorn cows which Sir G. A. Wills has placed in these rich pastures. One could not pick out individual animals, but had to take a comprehensive survey of the whole lot, and then the grand monarch of the herd was led forth. Now eight years old, it has fully justified its owner's expenditure of 4,200 guineas to detain it at six months old.

Mr. Whitley in a terse speech referred to the wonderful benefactions of the Wills' family to the city life of Bristol, but he was more than pleased to see such splendid examples of how Sir George was agriculturally inclined as well.

To the road again. I doubt whether the country around Sidcot and Winscombe was ever more beautiful. Across the moors, Bridgwater was reached and left behind, and in a little time we arrived at the Somerset County Council's Farm at Cannington. The party were at once received by the Chairman of the Agricultural Education Committee, Capt. T. H. Watson, who said the idea of the Committee was to provide real farming instruction by making the pupils work in learning it. They were no kid-glove farmers. They had started their herd of dairy cattle as any farmer could by purchases in the open market. These were duly milk-recorded. Their first year's average was 570 gallons, the second year 720, and the third 803 gallons. This could be done by any farmer at no extra expense. They were also breeding up a stud of Percherons. Their land was not suited to sheep; hence their flock was only a flying one.

The party were then taken in hand by Mr. Hay, the Principal, who said the farm consisted of 175 acres when they started it, carried 45 head of cattle, and 40 ewes, and they had to purchase £35 worth of hay. In three years their herd consisted of 65 head of cattle and 80 ewes, besides lambs, and several colts, and they had been enabled to sell mangels and wheat straw to the extent of £67. A walk out on the greatly improved pastures soon explained the reason why. Also, each cow that yields over 3 gallons receives 3 lbs. of cake per gallon.

The time devoted to viewing the experiments in the fields was all too short. A return was then made to the spotlessly clean dairy, the presiding genius of which is Miss Saker. She told how she paid the farmers who sent in their milk 1d. per gallon extra for clean milk. The

last pint of each churn of milk is taken and strained through cotton wool and the sediment gathered. This so impressed a Northamptonshire County Councillor that he secured some of these samples to take back to his county as an educational idea. Pasteurised milk is neither encouraged nor believed in down Cannington way. After an excellent luncheon the party were once more *en route*, this time to visit the Somerset County Show as guests of the Somerset County Agricultural Association.

Here the time was all too short to see the agricultural exhibits at one of the best shows this Association has yet held, and the County Council exhibit was highly attractive; in fact, I believe negotiations were set on foot to try and secure this exhibit as an educational exhibit elsewhere. Soon the party had to hasten away, this time to go to Brown's Café, where they were entertained to tea by the members of the Bristol Master Dairymen's Association. Mr. Whitley proposed a vote of thanks, which was responded to by Mr. Perrett. A drive along the sea front and then back to Bristol to be in time for dinner. A pleasurable and educational day.

In the evening the Conference dinner with guests was held at the Royal Hotel. Mr. S. R. Whitley presided, and was supported by the Lord Mayor of Bristol (Mr. E. Brookhouse Richards) and the Lady Mayoress.

In giving "The City and Trade of Bristol," the President said that he came to Bristol first 50 years ago, when he was a small boy. The Association with which they were connected that evening was an organisation of people whose duty was to supply cities with a good supply of the highest grade milk. No city could have the utmost health and prosperity without an adequate and good milk supply. There might be an assertion that that was not done always, but during recent years there had been a tremendous revolution in their industry, so that the supplies now delivered were quite different from what was common in past years. They wanted that to be the case everywhere, but it must be the result of all the help they could get from those interested in civic government. In the back streets, where sunshine was almost at a discount, the best milk supply was an essential, and did much to remedy the absence of sunshine. He was glad to know that Bristol traders were leading the way in supplying milk in bottles. He wished that that method would become general.

The Lord Mayor, in responding, said that there seemed to be a magnetism that induced visitors to speak in such appreciative terms of the city that was called "The Gateway of the West." Its position, the beauty of its surroundings, its enterprise in all directions, and its wonderful charities, made it a city of many and varied attractions. Their river was not always particularly beautiful, but it was a very practical and useful waterway from which ships had sailed to all parts of the world and made extraordinary voyages. Bristol had been a

pioneer in several ways, particularly in railways and electric trams. In several directions it had great manufactures. The employees at the chocolate and tobacco works alone equalled the population of many places that were regarded as large towns.

GOOD DAIRY FARMING IN THE WEST.

Mr. J. Evens, who proposed "The Agriculture of the District," remarked that he noticed many evidences of good agricultural conditions in the course of his journeys during the Conference. Farmers should concentrate upon the things that were best suited to their immediate districts. Around Bristol were some of the best dairy farm lands, and, so far as he had seen, those responsible were making excellent use of that advantage. They heard a great deal about agricultural policy, but they wanted at least half-a-dozen policies to meet all the varied conditions of agriculture in Great Britain. He had advocated the relief of agricultural land from the burdens of some rates in order that those concerned might follow their calling with confidence, that they would be able to work under a settled policy. They wanted cheaper production, and he believed that British pluck and enterprise would, in the long run, win through that and other difficulties.

Mr. E. G. Harding, who responded, said that the farmers of the Bristol district realised they had a duty to perform, and were doing their best to carry it out. They aimed at putting their produce on the market in the condition that it ought to be in. Districts in the neighbourhood of Bristol were noted for the production of important branches of the industry, such as Shorthorn cattle and Gloucester Spots pigs. As to "agricultural policy," about which they heard so much, he thought that farmers must—and could—work out their own salvation. (Hear, hear.)

Mr. G. T. Barham gave "Our Hosts," and on behalf of the Association expressed thanks to all who had entertained the members during the Conference. Referring to the differences between this year's Conference and the one held in Somersetshire 32 years ago, he said that the introduction of the motor-car, which was practically unknown 32 years ago, had enabled the members this year to travel by road a distance of 700 miles. They were especially indebted to Lord Bledisloe for his assistance to the Conference—(Applause) and to the Local Committee, including Mr. Eldred Walker, who was "a real bit of Old Somersetshire." (Laughter and applause.) After hearing him give the order "All aboard" they would remember his voice for years to come. (Laughter and applause.)

Mr. A. J. Clare and Mr. Eldred Walker, whose names were coupled with the toast, returned thanks.

THURSDAY'S TOUR.

Though there was a big day ahead there were no vacant seats on the chais-a-banc.

The programme indicated a run of 130 miles. It was barely half-past eight when the all-aboard signal was given at the Royal Hotel. The first stop was at Lynham, and thence we speeded through Swindon to Queenlams Farm, Highworth, where we saw a very fine herd of Shorthorns, all tuberculin tested. Mr. Chillingworth started his own herd in 1895. He has never exhibited largely, but has produced two 2,000-gallon cows. He believes in a bit of sport, for has not his well-known steeplechaser, "Prime Dutch," won fully a score of well-contested point-to-points? And the cups were to be seen on the lawn.

The next move was across the fertile valley of the Thames to Lechlade, and thence to that wonder home of the dairy Shorthorns, Messrs. Hobbs', at Kelmscott. As long as Shorthorns remain, the name of Hobbs will be associated with them. To enable them to breed, to select, and to sell, Messrs. Hobbs' holdings comprise some 3,000 acres, half arable, half pasture.

After a fine luncheon of home-cooked foods we went on to Messrs. Sayers', Groundswell Manor, Blunsdon, Swindon. It may be mentioned that the Groundswell herd of British Friesians was started in Scotland during 1913, and moved down into Wiltshire in 1916, and numbers at present about 70 head. Messrs. Sayers are great believers in the virtues of ensilage.

Major Buxton's home farm at Tockenham was also visited. This farm, which has been under the care of Mr. W. C. Fry for over 30 years, is a model of neatness and cleanliness, and allied to this is good breeding, effecting a most desirable combination. Grade "A" T.T. milk is produced, and the bacterial count has been brought down remarkably low, the admirable manner of sterilisation counting much.

After partaking of tea and rambling through the lovely gardens, the next halt was the Wiltshire Creameries, Chippenham.

This Company handles a lot of milk produced by farmers in the Chippenham district. It is very up-to-date in its equipment. After inspecting the creamery the company were most hospitably entertained by the Directors, with the result that it meant another late dinner in Bristol.

FRIDAY'S TOUR.

The party had kept well together; in fact, there were hardly any absentees on the Friday morning. A short drive took the members to Mr. Mostyn Williams' Manor Farm, Horfield. Here was seen the only milking machine shown on the Conference, and also the necessary appliances for the bottling of clean milk. Another short run brought

the party to Winterbourne Court, the home of Mr. T. Mansfield's British Friesians. Amongst this entirely home-bred herd were some exceptionally heavy milkers.

THE OLD SPOTS.

Next came Mr. John Douglas' Gloucester Old Spots pigs. There were few breeds of pigs that so suddenly asserted themselves in popular favour as the Gloucestershire Old Spots pigs. They made sensational figures, as much as 600 guineas being paid for a boar, whilst a litter of six pigs realised £1,120 by public auction. The Woodstock herd, owned by Mr. John Douglas, has, happily, been kept up to date, and here will be seen some of the most representative specimens of the breed.

Mr. William Douglas and the Directors took us to view Douglas motors. We were shown the T.T. machines that, it is hoped, will bring the trophies back from the Isle of Man this year.

After luncheon we went to the National Fruit and Cider Institute, Long Ashton, about which I have recently written. Thence to Mr. W. R. Withers, of Lower Court Farm, Long Ashton, who is in the happy position of having grown tired with the mere monotony of winning prizes through the medium of his justly renowned herd of dairy cattle.

The visitors were loud in their praises of this superb herd of over 50 cows and another 50 young beasts, all roans with the exception of one red. Tea on the lawn at Lower Court Farm brought the Somersetshire Dairy Conference to a close. It was generally considered to have been one of the best during the past 30 years. In fact, to cover an area some 90 miles square seemed a sheer impossibility to some when the Conference started. Yet this was accomplished without a single breakdown in the arrangements or a solitary cut in the programme. The excellence of the Bristol Tramway Company's new chars-a-banc enabled it to be done. The fine work performed by the Secretary of the Association, Mr. B. Ravenscroft, must not be overlooked, and it was hard on him to have to cut the limit of the Conference in face of the numerous other invitations which would have enabled it to run fully for another week.

ELDRED G. F. WALKER.

ROOTS AND QUALITY OF BACON.

By GERVAISE TURNBULL.

THE quality of bacon and the curers' ideal standards are being much ventilated at present—indeed the position seems chronic. It seems to be admitted that feeding has more to do with this matter than either breed or conformation, for while some curers are strong on particular crosses and a thick streak or belly, others actually prefer a thin one, and differ as to their choice of breed, though equally rejecting a soft or otherwise badly fed carcase.

It seems likely that we may hear more of the causes of the appearance of this type of bacon now that more vegetable matter is fed to pigs, for, useful as this is, it is not an unmixed blessing. Indeed it is only in the correct mixing of such foods with meals that we must look for economical results. So much of the grazing pig's food has hitherto been grass or lucerne that we have yet something to learn about the best proportions in which to use roots like swedes, kohl-rabi (a very good pig food), parsnips, carrots and even, probably, potatoes. If we go by the Rothamsted experiments of some years ago we find that roots like these gave as good quality when used up to 10 per cent. with meal as did the latter alone.

But, now-a-days, many use more than this, and some less. Even up to 40 per cent. potatoes seems to give good results when combined, say, with fish meal, or milk, as their effect on the carcase is better than with other roots, and they have more vitamins than might be supposed. Parsnips, on the other hand, though a much more nourishing food, want more discretion in using as they spoil the flesh, if fed in excess, Wiltshire bacon men have informed me. Cooking may have something to do with quality, for in Ireland the soft, oily nature of some of the bacon has been attributed to the use of the raw maize which is used, even when potatoes are cooked, as they are by the small Irish farmers, for it was found that cooked maize when fed with dairy produce did not make the bacon oily. However, cooking is hardly to be recommended except, perhaps, at present prices, with small potatoes. During the War there was some extensive feeding of the roots mentioned above, particularly kohl-rabi, when it was found that a high proportion of varied vegetable matter could be profitably turned into pig-meat of good quality when it was well re-inforced with albumenoid food in the form of cakes and other vegetable protein, so where there is no ready sale for superfluous roots pig-feeding (balanced) may still prove a useful means for their disposal, and even without stimulants in the form of meat or fish meals, which have lately been strikingly shown to be unnecessary when decorticated earth nut and bone meal are used.

THE UNDER-NOURISHED CHILD.

By SIR JOHN ROBERTSON, C.M.G., M.D., B.Sc.

FOR a great many years it has been known that some children are under-nourished. They look pale, they are thin and dwarfed, and more or less dull in intellect. They seem in most cases to be careworn, and to lack the joy of life that ought to be in the possession of every young child. Some of these children grow up to be normal individuals, because apparently some alteration in their circumstances happens which gets them out of their mal-nourished condition. Others grow up to be permanently injured, and become the inefficients of the world.

Children in such a condition frequently succumb to intercurrent disease. Those who manage to survive are likely to become a charge on the community throughout the whole of their lives, more or less. They become what we call the C3 population.

It frequently happens that a doctor, on examining an under-nourished child, will report no evidence of disease. If he ascertained what had happened to this child, he would usually find that the condition commenced some time after an illness, such as measles or whooping cough. He would also find in a large number of cases that the child came from a house where the parents were ignorant of the needs of young children. In some cases the parents are well-to-do.

It is rare to find that such a condition arises only from continued starvation in the usual acceptation of the word. It is more frequent that unsuitability of food, unhygienic conditions in the home, dirt, and overcrowding produce the conditions mentioned.

What has to be done for such a child? In the first place it is seldom that the under-nourished child requires medicine of any kind. What is of much more importance is that a careful inquiry should be made into the question of the kind of food consumed and into the child's habits of life, and that proper remedies should be applied. The most obvious remedies are as follows:—

1. Secure for such a child 10 or 12 hours' sleep in a well-ventilated bedroom.
2. See that the child is not overworked, either before or after school hours, by having to be up early or to work late at household duties, or in minding the younger members of the household.

3. Such a child requires suitable and properly cooked food, with a sufficient time allowed for mastication of the food.

4. Time spent in the open air and in the sunlight has a wonderful stimulating effect on the nutrition of such a child.

5. An under-nourished child needs to receive the other amenities of life, such as good clothing, bathing, exercise, &c.

The foundation of most of our common chronic diseases is laid in childhood, and is usually due to want of knowledge on the part of the parents as to how to look after the child. It is very seldom due to purposeful bad treatment, for nearly all parents are anxious to be in possession of information as to what is necessary for the proper rearing of their children. English people, however, do not like being constantly told how to do this or that or how to bring up their children, and it is necessary that the instruction, if it is to be given, should not only be given by somebody who really has the knowledge, but by somebody who is capable of gaining the confidence of the parents because of the possession of such knowledge.

A good deal of this work of advising parents is now being done by school medical officers, whose duty it is to medically examine all children attending elementary schools and to get the parents of the children to be present at the examination, so that any defects and their remedies may be pointed out.

Habits formed during the lifetime of the parents are difficult to alter, and these bad habits are passed on to the children, with a result that many of these younger lives are damaged by the unwholesome conditions obtaining in the household. It is often impossible to completely alter the habits of life of these people, and, therefore, something is necessary for the children which will to a limited extent counteract the evil effects of their household régime.

What has proved to be one of the best ways of assisting such children is the giving of some article of food calculated to supply the omissions in the home diet, and among these the best of all articles of food is milk. It is easy to supplement the child's normal food by giving a glass of milk twice a day, equal to one pint per day. It is possible now to purchase milk in half-pint bottles and to give a child during the morning session at school a half-pint bottle of milk, with a straw to drink it through, and a biscuit, and to do the same in the afternoon, without disturbing the school régime.

■ This method is recognised to be incomplete, but wherever it has been tried there has been definite evidence of increased growth and mental alertness and a loss of the under-nourished condition from which the child was suffering.

Most of the large American cities have demonstrated the value of giving this milk to the under-nourished child. In England we have gone to much greater trouble, and have supplied breakfasts or luncheons, usually with a portion of milk, to these under-nourished children, and the results have been good.

I suppose that everybody will admit that it would be more economical and that the results would be better if it were physically possible to alter the habits of the parents of these children, but this is a matter of extreme difficulty. It may be accomplished in a few cases, but in the majority it would be difficult or impossible to accomplish and the child would suffer.

An experiment was made in Birmingham by Dr. G. A. Auden, School Medical Officer, at the instigation of the National Milk Publicity Council, in 1922-23 on the results to be obtained by the giving of a pint of milk per day to under-nourished children, and comparative observations were made on children of the same age who appeared not to be under-nourished. Each child received its pint of milk on six days a week.

Dr. Auden reported that "the first and most noticeable result of the extra ration was a clear improvement in the bodily and mental vigour."

In addition to the improvement in the bodily and mental condition, there was an increase amounting to 20 per cent. in the red colouring matter of the blood among the poorly-nourished children, that is to say, their pallor became less. Such an increase could hardly fail to produce an increased metabolism, which is likely to show itself in greater vigour and a subjective feeling of improved well-being. In other words, the short Birmingham experiment demonstrated quite clearly that the giving of extra milk produced wonderfully good results.

It may be asked why it is that milk produces these effects. The answer is:—

(a) Milk is one of the most nourishing foods we know of, because it contains nitrogenous matter easily assimilable in the form of dissolved albumen (white of egg).

(b) It contains fat, also in the most assimilable form, viz., emulsion.

(c) It contains the very important vitamins and salts necessary for growth and formation of tissue in children, and no other food contains all these qualities combined.

There are for practical purposes no children who are not greatly benefited by a liberal milk ration daily. It is wise, therefore, to advocate generally the free use of milk in the family budget, and to look upon it not as a liquid to quench the thirst, but as a food which nature has specially prepared and diluted for the young.

IS MILK WASTED IN PIG-FEEDING?

By GERVAISE TURNBULL.

WHATEVER the rival merits of wet or dry feeding properly conducted we are apt to feed too much liquid in the ordinary way. And for this reason we are inclined at times to feed milk wastefully. The Danes have studied food values very closely, and their practice is different to ours. Their standard diets are considerably higher than our own, but they feed milk with more care than we do. They reckon milk to be about double the value of whey, and they feed it in that proportion, and not more than 12 to 30 per cent. of the total food value of the ration.

The effect of this is that they feed a dryer ration than we do, with probably a better return for their outlay. With breeding sows the matter is different, and it is far better to feed separated milk through the sow than to feed it in quantity to the piglings direct; but for feeding pigs we have very good reason to believe that the nearer in weight the proportion which milk bears, in reason, to dry food the better the feeding value. The same thing has been found with whey—a proportion of one to two being somewhat better than one to three and higher—they have found in America. Each separately fed is of less value than when combined, and if we drown the meal we tend to lessen the value of combination. It has been found in America that if less than $3\frac{1}{2}$ lbs. of meal accompany a gallon of separated milk the results are much less satisfactory than when the proportions are more even, and we are now finding out that the way the food is put together often has much to do with its nourishing power, for one food may have much influence on another.

If we take a ration for a Danish pig of 60-120 lbs. we shall find that the 6 lbs. of skim milk figures as one-sixth of the food value of the ration completed by $4\frac{1}{2}$ lbs. barley meal and 2 lbs. potatoes, whereas our milk ration is apt to be more generous.

What was described before the Farmers' Club as a paying ration, popular for pigs from 80 lbs. to bacon size, consisted of 3 lbs. of potatoes and 4 of barley meal, plus 10 lbs. separated milk. We find here that we are giving rather less food solids than the Dane, taking the respective sizes of the pigs into account, but a much higher proportion of milk, and, quite likely, not getting so good a return for outlay. This proportion of milk is doubtless often exceeded, and the balance would be better given to the poultry. The success of dry feeding seems to point a moral this way.

ANNUAL REPORT OF THE CONSULTING CHEMIST.

T. J. DRAKELEY, Ph.D., M.Sc., F.I.C., F.C.S.

THE number of samples submitted by the members for examination during the past year has again been small, and only totalled 76. The articles have been mostly milk samples for routine analysis, and call for the following comment in this report.

During the past year there has been a noticeable increase in the number of samples of milk which have not reached the presumptive minimum limit of 8·5 per cent. of non-fatty solids. A large proportion of these samples were definitely known to be genuine, and to have suffered no adulteration whatever; and in the other cases, the high percentage of fat leads to the conclusion that water could not have been added. It would be interesting to know whether other analysts have also observed this peculiarity during the past year, and whether any conditions have existed to which this deficiency might be ascribed. If other analysts confirm the results, the matter certainly raises the question of the validity and accuracy of the regulations presuming that water has been added to the milk whenever the minimum presumptive limit of 8·5 per cent. of non-fatty solids is not reached.

PRIVILEGES.

The Council of the Association has, with the publication of this issue of the Journal, extended the Chemical Privileges of all members.

Almost all the fees for analyses have been materially reduced, and in addition, each member whose subscription for the current year is paid, is now entitled to one analysis of a dairy product free of charge.

This is a real inducement for farmers to become members of the Association, and every present member will be advancing the objects of the Association by trying to bring in one member. Such a prospective member might consider joining the Association, not only to support the valuable work it is doing, but also to become entitled to the many privileges which the Council now offers with membership (see pages 255-260). Will each member send to the Secretary on a postcard the name and address of a non-member so that the Association may get into touch with the person?

THE DAIRY SHOW OF 1925.

By SAMUEL R. WHITLEY.

UNTIL well into the autumn, it looked as if the 1925 Dairy Show (October 20th, 21st, 22nd and 23rd), would be held without the usual unsettling conditions of coal or railway strikes, and with a minimum of danger from Foot and Mouth Disease, but such desirable circumstances were not to be, and, as the final arrangements were reached, the position with regard to Foot and Mouth Disease looked very threatening.

The demand for stand space was as keen as ever, and the entries in the competitive classes were not far short of record years, but at the last moment it was evident that many properly entered cattle would have to be kept at home, and out of a total entry of 470 cattle, only 247 were able to put in an appearance. Before they had settled down to the novel conditions of the Agricultural Hall, the Ministry's Veterinary Surgeons appeared on the scene, reporting a fresh outbreak in Sussex which necessitated the removal of some 20 cows which had come from the newly scheduled area—these were removed as quickly as possible and things settled down again, but only to be once more upset by the removal of four more just as the Show was opening—fortunately, these four had just time to compete in the Milking Trials and Butter Tests.

All sympathy must be extended to those who had gone to the great trouble and expense of sending their cattle, only to have them fired out, because some farmer's stock in their home-area had suffered from Foot and Mouth Disease, but such is the fortune of war and of competition, and the safety of the cattle remaining in the Hall has to be the first consideration.

Last year, during the Dairy Show, the country was in the throes of a General Election and the attendance at the Show suffered in consequence—this year there was an improvement in the attendance, though the gate-money was considerably short of the high-water mark attained just after the War.

The stand-holders reported having done good business, and were well satisfied—the Dairy Show is always a happy meeting ground for those engaged in like pursuits, and it becomes more and more a social function not to be missed by those who would keep themselves abreast of the times, but it must never be forgotten that its main purpose is to facilitate business in every direction.

The stands, as in the last few years, bristled with appliances specially designed to keep the milk pure, clean and wholesome, right from the cow's teat to the baby's mouth—it was evident that in a few years time all high-class milk will be sold in bottles, and the out-of-date methods of peddling out milk into the householder's more or less dirty jugs will soon be as dead as the Dodo.

Nature provided at the beginning of things that between the producer and the consumer, *i.e.*, between the mother and the youngster, milk should *never* be exposed to the atmosphere—life in cities and the long distance that milk has now to travel in order to reach the consumer, have caused this law to be broken and forgotten in the past, but science is bringing us all back to nature, with results that all up-to-date milk producers are now using their best endeavours to keep milk *from* the atmosphere, which means covered buckets, covered coolers, sealed churns and sealed bottles, &c. This means a great harvest for the makers and distributors of such apparatus, and the Dairy Show of 1925 reflected this fact to the full, but alas, the makers and distributors are sometimes apt to forget that they owe all this increased business to the teachings of Dairy Science !

Again, the Ministry of Agriculture assisted the National Institute for Research in Dairying and the British Dairy Farmers' Association to give demonstrations throughout the Show with a view to explaining and popularising methods essential for the production of clean and long-keeping milk.

These demonstrations drew large audiences, and were largely attended by medical men and others interested in Public Health. The time is fast coming when milk produced under such ideal conditions will be within the reach of every citizen who cares to ask for it—it is the average citizen and not the farmer that lags behind—the up-to-date milk producer is already educated, but the average citizen still remains to be taught both the extreme value of milk and its extreme sensitiveness. Such demonstrations are, perhaps, most valuable in the cities, and certainly at the London Dairy Show they are very popular.

The Milk Publicity Council made a good display in the Hall, and were able to produce some good evidence that science and publicity are leading up to an increased consumption of milk. Slowly it is being realised that increased consumption of milk means *lessened* "Consumption" (or Tuberculosis) amongst children, and the quickest way to banish this dreaded disease from our homes is to "Drink More Milk."

The following table of competitive entries for the last 12 years shows a slight falling off from the high-water mark of 1923, though they are still as many as the Hall can comfortably accommodate.

The cows were again restricted to those that are "Recorded" in a properly recognised Milk-Recording Society.

THE FOLLOWING TABLE GIVES COMPARATIVE DETAILS OF THE ENTRIES AT THE DAIRY SHOW WITH THOSE OF THE PAST TWELVE YEARS.

	1910.	1911.	1912.	1913.	1914.	1915.	1919.	1920.	1921.	1922.	1923.	1924.	1925.
Cattle	288	222	210	286	234	204	292	384	455	515	539	473	470
Milking and Butter Tests	264	213	209	265	167	198	334	492	614	760	772	718	700
Goats	75	81	105	110	85	116	115	109	101	91	67	72	48
Poultry	3,259	3,300	3,350	3,840	3,089	2,653	2,736	4,317	4,348	4,398	4,685	4,498	4,355
Pigeons	2,280	2,226	2,496	2,467	2,291	2,735	2,760	3,259	3,272	3,208	3,115	3,027	3,094
Cheese	362	249	343	395	301	271	342	462	406	418	488	486	459
Bacon and Hams...	104	58	71	89	67	45	—	34	56	87	89	113	95
Butter	525	484	618	549	371	339	242	286	322	388	401	483	420
Cream	47	26	48	43	27	20	16	19	32	37	33	30	47
Skim-milk Bread, &c.	98	72	83	64	46	65	40	40	No class	No class	No class	No class	No class
Honey, &c.	96	87	95	106	126	77	20	49	63	58	92	102	53
Bottled Fruits and Vegetables	—	—	—	—	—	—	—	45	25	26	53	65	33
New and Improved Inventions...	34	21	25	41	24	6	23	14	38	30	37	37	54
Roots	196	172	190	190	59	51	80	144	148	183	190	283	269
Buttermaking Contests	145	165	165	141	97	101	110	86	162	141	129	154	130
Milkers' Contests	122	153	119	137	85	82	77	80	98	44	43	56	51
Junket-making Contest	—	—	—	—	—	—	—	7	8	12	23	33	27
Colonial Produce	—	—	—	—	—	—	—	2	2	3	3	1	2
Cow-Judging Contest	—	—	—	—	—	—	—	—	—	—	7	4	8
Collection of Produce	—	—	—	—	—	—	—	—	—	—	—	8	18
	7,895	7,529	8,127	8,723	7,069	6,963	7,187	9,829	10,150	10,399	10,766	10,643	10,333

CATTLE.

The entries for the three classes for Pedigree Dairy Shorthorns, with 26, 22 and 26 entries, were not quite so numerous as in some recent years, though competition throughout was good, but without any outstanding animals.

The results of the Milking Trials and Butter Tests are fully reported on in another part of this Journal, so special comment in this report will only be necessary where outstanding merit on Inspection is shown by the winners of those competitions.

Amongst Pedigree Dairy Shorthorns, perhaps the outstanding animal was Major S. P. Yates' "Rickerscote Foggathorpe," which won 1st both in the Milking Trials and the Butter Tests, with an H.C. for Inspection, though she had been 144 days in milk.

The two classes for Non-Pedigree Dairy Shorthorns, with 16 and 13 entries respectively, were disappointing as to numbers that were able to put in an appearance, there being only 3 present in the Heifer class.

Mr. A. B. Croxon's "Spot" was outstanding, securing 1st in the Milking Trials and 1st on Inspection, and eventually won the "Morrison" Trophy for gaining the greatest number of points at three consecutive Dairy Shows. In the Heifer class Mr. J. H. Robinson's "Watercrock Ruby" and Mr. W. H. Phipps' "Faith" were 1st and 2nd on Inspection and maintained the same honours in the Milking Trials.

The classes for Lincoln Red Shorthorns were well filled, and the competing animals a very even lot. Amongst the cows, Mr. John Evens' "Burton Amy 7th" was 3rd on Inspection, and 1st in the Milking Trials, and 2nd in the Butter Tests, while Mr. S. Reading's heifer "Langford Polly 18th" was 1st both on Inspection and in the Milking Trials.

British Friesians were again entered in goodly numbers, but Foot and Mouth Disease and other causes prevented many of the best animals from putting in an appearance. Amongst the Older Cows, Mr. S. Pyman's "Felhampton Susan" was placed 2nd on Inspection, 1st in the Milking Trials, and 3rd in the Butter Tests, thus winning the "Spencer" Cup for the most points on Inspection, Milking Trials and Butter Tests, while the Hache Herd's "Haydon Pax" seemed to have hard luck in receiving only Highly Commended on Inspection, but 2nd in the Milking Trials, and 1st in the Butter Tests.

Of the younger British Friesian Cows, Mr. C. W. Glossop's "Lund Blanche 22nd" distinguished herself by being placed 2nd on Inspection, 1st in the Milking Trials and Highly Commended in the Butter Tests.

The competition amongst British Friesian Heifers was of a somewhat limited character, but the 1st and 2nd prizewinners on Inspection maintained the same positions in the Milking Trials.

☛ The classes for South Devon Cows were duplicated in order to allow a class for the new society called the Recorded Dairy South Devon Cattle Society—the old established class for full Pedigree Cows only brought 4 entries against 9 entries for the Recorded class, but the winner of the former class in the Milking Trials, Mr. G. Wills' "Snowdrop 2nd," was well ahead on points from anything that appeared in the new Recorded class, and this cow also had the distinction of being practically equal 1st on points amongst all competitors in the Butter Tests.

The class for Devon Cows (which used to be known as a beef-breed) did particularly well with 9 entries and 8 present, which the Judge considered as good representatives—the winners in the Milking Trials gained more points than those in the new Dairy South Devon Class, and the Judge recommends the raising of the qualifying minimum yields.

The Red Polls were slightly lower in numbers than at last year's Show, but a decided improvement in the class of animal, all the exhibits being of true Dairy type. This breed did particularly well in points for the Milking Trials considering their size, and in the class for Heifers the winners in the Milking Trials obtained more points than any other breed except Ayrshires—the winning heifer on Inspection, Mr. C. F. Newton's "Saham Darker Draught," being specially distinguished by gaining 1st in the Milking Trials and 2nd in the Butter Tests.

The class for Blue Albions brought 9 entries, which should be considered a fair number considering the hard luck this new breed has experienced through Foot and Mouth Disease at the two previous Dairy Shows.

They were of excellent quality and very well up in the points for Milking Trials, having the highest average of any class—Mr. J. D. Seal's "Pike Verocity" was 1st on Inspection, 1st in the Milking Trials and 3rd in the Butter Tests.

There were 5 entries in the class for Welsh Black Cows, which is a slight improvement on previous years, but the Judge still laments the small numbers.

Mr. C. W. Compton's cow "Hall Green Gift," a very neat animal of true Dairy type was 1st on Inspection, 1st in the Milking Trials, and 1st in the Butter Tests, winning the two latter competitions through giving particularly rich milk.

Ayrshires were again the outstanding breed of the Show—perhaps the finest collection ever seen at the London Dairy Show. Not only were the leaders in the classes outstanding in type and quality and general conformation, but also the yields in the Milking Trials very closely corresponded to the judgment on Inspection—Mr. J. Johnstone's wonderful cow "Millantae Mayflower" was 1st on Inspection and also in the Milking Trials with the excellent score of 165.2 points. In the Ayrshire Heifer Class 16 paraded, and were a repetition of the high standard of excellence attained in the Cow class, and the high average of milk yield made this class the outstanding class of Heifers.

The exhibition of Guernseys was spoilt by the unfortunate outbreak of Foot and Mouth Disease in Sussex just before the Show opened, but the Older Cow class was a fairly strong one, with Mr. T. R. Bolitho's "Tregye Maze" 1st on Inspection, 1st in the Milking Trials, and 1st in the Butter Test giving a really wonderful butter fat of well over 7 per cent. after being 191 days in milk. In the Younger Cow class all the cattle in the prize money were excellent specimens of the breed. Only four animals appeared in the Heifer class, but the 1st and 2nd were exceptionally good, Mr. Chester Beatty's "Calehill Peaceful" being 1st both on Inspection and in the Milking Trials.

The Jerseys made a fine show in spite of many absentees due to Foot and Mouth Disease. The 1st, 2nd, and 3rd prizewinners in the Older Cow class were all typical dairy cows, with wonderful udders, that had passed the 1,000 gallon standard, Mrs. H. Briggs' cow "Lily of the Valley" being outstanding as 1st for Inspection and also in the Milking Trials, while Mr. R. Bruce Ward's "Pirouette" was Highly Commended on Inspection, equal 2nd in the Milking Trials and 1st in the Butter Tests, making the highest score of all, showing well over 6 per cent. of butter fat after being 153 days in milk.

In the Younger Cow class, while all were good, Mr. G. Cross's "Roberta's Star 2nd" was outstanding with 1st on Inspection, 1st in the Milking Trials and 3rd in the Butter Tests.

The Two-year-old Jersey Heifer class also was most praiseworthy—the Judge, being of a practical turn of mind, while commending all the exhibits, expresses the hope that the heavily-rugged and delicate-looking Jersey will soon be a thing of the past—he wants them to improve the milk of other breeds.

The Kerry classes were, unfortunately, much attenuated by the fresh outbreak of Foot and Mouth Disease in Sussex, there being 13 absentees from the two classes, but both classes made a creditable show under the circumstances. One of the surprises of the Show was Lady Fitzgerald's cow "Buckland Peace 2nd" which was placed

1st on Inspection and 1st in the Milking Trials with the remarkable score of 134.2 points, thus beating all the Pedigree-Shorthorns at the pail.

There was a fair entry of Dexters, but here again the fresh outbreak of Foot and Mouth Disease caused several to be absent, and in the Heifer class only one was able to appear and carried off 1st prize, as it would probably have been in the same position if others had not been debarred from coming.

The class of Any Breed, to be milked three times daily, but again debarred from all the cups and trophies, brought 8 entries, all of them British Friesian. For Inspection they were for the first time judged as a class to themselves. In the Milking Trials they put up wonderful scores, Mr. C. B. Tubb's "Terling Ivory 8th" making 176.8 points, the highest score in this Show, and probably the record of any Dairy Show—she gave $9\frac{1}{2}$ gallons in the 24 hours. All the winners in the Milking Trials were below the standard of 3 per cent. butter fat at the early morning's milking, but to a large extent made up for that deficiency at the later milkings.

A scientific pamphlet from Belgium, where three times a day milking is the common thing, states that "it is usual for the morning's milk to be the poorest in butter fat and the *mid-day* milking to be the richest, while the evening's milking is about the average of the morning and mid-day samples."

Taking the butter fat figures of the first four animals in the above Thrice Milked class, in every case the morning's milk is the poorest (always below the 3 per cent. standard), but only in one case is the mid-day milk richer than that of the evening. The evening's milking gave very good butter fats, and the mid-day milking were quite fair, but the morning's (after a nine hours' interval) only averaged 2.53 per cent. of butter fat.

BULLS.

The classes for Dairy Shorthorn Bulls brought rather more entries than usual, there being 6 in the old class and 19 in the young class. Both were good classes and led by Bulls of outstanding merit. They certainly deserve a better place in the Show, but it is difficult to find it, and the writer wonders whether it would not be a sound policy for the B.D.F.A. Council to abolish these Bull Classes and extend the prizes for Bulls given on the "Robert Mond" Challenge Shield lines, so that Bulls may be in the future more and more judged by the Milk Records of their progeny.

The class for Friesian Bulls brought only 2 entries and both were considered worthy of prize money. The class for Red Poll Bulls brought only 3 entries and all three were in the prize money.

The class for Jersey Bulls brought 7 entries with 5 present, and the Judge reported them all as excellent.

GOATS.

The entries of Goats were only 48, the lowest number of recent years, and two classes, viz., She-Goats, British Toggenburg, and the Recorded Class had to be cancelled for lack of support. A slightly higher proportion of those entered was able to be present, and only one was known to be absent through being in a scheduled area. Goats are the "poor-man's" cow, though appearances in the Hall might seem to belie this statement, and the writer does not like to see this diminution in numbers at the Dairy Show. What can be done to improve matters?

They were again stalled at the top of the Main Hall, and the quality of the animals was excellent, very few inferior specimens being present.

The outstanding feature was Mrs. Abbey's "Didgemere Dream" Q**, a first kidder. This goat created a record for the Dairy Show by yielding 13.35 lbs. of milk with butter fat at 4.8 per cent. and 3.60 per cent. She headed her classes for Inspection and for Milk Trials and took away no less than 6 Challenge Trophies, besides helping to win other "Group" prizes—a truly marvellous record, but where one can lead, it ought to be possible for others to follow.

CHEESE.

The total entries of 459 were about up to the average of post-war Dairy Shows and, from the general comments of the various Judges, they may be considered a creditable display.

Stiltons.—Both the class for 6 Cheeses and the one for 18 Cheeses were about up to the average in numbers and quality, most of them being nicely moulded—it was noteworthy how the prizewinners seem to emanate from the Melton Mowbray district.

Cheddar Truckles and Cheddars.—These were three big classes of generally very fine Cheese. The Judges were struck by "a certain looseness" in the West of England Cheese and a "pronounced tightness" in the Scotch entries. Generally they thought the bulk of the Cheese were too young, and they consider the tendency towards too early maturity (and decay) is not in the best interests of British Cheese Makers.

The West of England carried off the 1st prizes in each section, along with the "Lord Mayor's" Cup and "N.K.J." Cup (Mr. S. T. White, of Ilchester), but the Scotch makers were well in the running for the other prizes.

More than half the entries for *Colonial Cheddar Cheese* came from Ontario, and carried off all the honours, including the "Hansen" Trophy. Other Colonies represented were South Africa, 3; Queensland, 2; New South Wales and East Africa, 1 each.

The entries in the *Cheshire Cheese* classes were more numerous than those of last year, and showed good judgment in the selection of suitable Cheese for the London Market. The best lots were very near in value, making final awards difficult. The "Lord Mayor's" Cup, along with the "Fulwood & Bland" Cup, were won by Mr. O. Hesketh's exhibit in the 12 Cheeses class.

The Judge reports the new "Novice" Class as containing some useful samples, but a good many of the Exhibitors have still a lot to learn.

The class for *Factory Cheese* brought 14 entries, very variable in quality, and many of the exhibits were tainted, and the texture was not typical in many of the varieties. The 1st prize went to a very good even lot of Derbys, and the 2nd prize to an exhibit of Cheddars, which, though clean in flavour, were rather too new.

Leicester Cheese.—A class of 10 entries, fairly representative of the type of Cheese, but the Judge found discoloration in several of the entries. The flavour on the whole was good, but the lack of similarity of flavour in the various Cheeses from the one Exhibitor detracted from their value.

The class for *Lancashire Cheese* had only 4 entries, but they were good Cheese of characteristic flavour and texture.

The class for *Derby Cheese* had 6 entries, but they were of good quality and distinctive type, with the texture uniform and well turned out by each Exhibitor.

The competition in the class for *Double Gloucester Cheese* was fairly keen, with 12 entries; the winning Cheeses were outstanding.

The class for *Single Gloucester Cheese* brought 9 entries which were good on the whole, and some excellent.

The class for *Caerphilly Cheese* brought 20 entries, only 1 of which was absent—a very good class, the winners being very close and typical of the variety—the worst specimens were too firm and dry, appearing to be made from milk of poor quality.

Wensleydales were a class of 6 entries, but with 3 absent—two of those present were not uniform throughout the 6 cheese required.

Both the Judges pass very favourable comment on the two classes for *Smallholder Pressed Cheese*, the classes being large and the produce generally excellent with very close competition.

For the first time these classes were divided according to size rather than according to whether they were quick-ripening or long-keeping cheese. One of the Judges strongly recommends a reversion to the old method of dividing the classes, viz., into quick-ripening and slow-ripening cheeses.

The class for *Small Cheddars*, open to pupils who have attended County Travelling Cheese Schools during 1924 and 1925, was quite good and had 13 entries, but the Judges considered many were too young and far from ripe.

The class for *Small Cheshires* brought 10 entries and was reported as too varied in substance and quality, &c., although the 1st and 2nd prize lots stood out.

The Inter-County Competition for the best collection of *Small-holder Cheese*, made by the persons who have received instruction in Cheesemaking at a County Council Travelling Cheese School during 1922-1925, brought only 2 entries; both were of good quality. The County of Berkshire being the winner.

The class for *Cream Cheese* (made from pure cream only) was a very good one, with 20 entries.

The class for *Unripened Soft Cheese* (other than Cream Cheese) was also very good, with the exception of one or two exhibits.

The class for a *Collection of Produce* (open only to Women's Institutes) to consist of 2 lbs. of Fresh Butter, 1 lb. of Cream (raw or scalded) and 2 dozen Eggs; the collection to be packed in a box and sent to the Show by Parcel Post, brought a very good entry of 18. The produce on the whole was good, but faulty packing was the cause of a number of broken eggs. The cardboard boxes, lightly packed, gave the best results, especially where good strong egg-boxes were used, or the eggs separately wrapped in tissue paper. The cardboard cartons were most satisfactory for cream.

BACON AND HAMS.

The classes for Bacon were very badly patronised, two of them containing only 2 entries each, of which 1 was absent, ~~while the~~ rest had 7, 6 and 5 entries only.

The Council should seriously consider how these classes can be improved.

The class for the Pig Breed Societies contained 4 entries, much as in previous years, and was won by the Gloucester Old Spots, which showed great improvements on their exhibits of past years.

The Individual Classes for Pure Bred and 1st Cross Pigs were not so well patronised as in previous years. In the Pure Bred Class the Gloucester Old Spots were again successful, and Lord Bledisloe had the satisfaction of winning his own Trophy for 1st Crosses, the cross being Large White and Large Black. A full report of these Bacon Pig Classes will be found in another part of this Journal.

The classes for Hams were slightly better filled than those for Bacon, but still nothing to be proud of. The class for One Ham

(open only to members of Women's Institutes), brought 3 entries, and the one for a Farmhouse-cured Ham had the same number. The Selling Class for Two Hams was better patronised with 13 entries.

BUTTER.

The 2-lb. classes, both Slightly Salted and Unsalted, were well patronised, and the Judges report them as very good, especially the Novice class, there being a distinct improvement in the flavour all round, though in the class for Unsalted Butter (from Cattle other than the Channel Island Breeds) there were several exhibits which were below Show standard, both in colour and flavour, the difference between these and the prizewinners being most marked.

The class for Butter made from Scalded Cream was a particularly good one.

The entries in the classes for Commercial Butter show a slight improvement, and the Judge reports the exhibits, with just a few exceptions, to be good throughout, a number of exhibits showing exceptional merit, the texture, colour and flavour being almost perfect. In a few samples there was too much loose moisture; in others defects in packing, the colour of the parchment being cloudy and a poor finish to the Butter.

The new class for 2 lbs. of Butter made up in the most attractive form in Bricks, Rolls or Pats for table use brought 12 entries of a rather diverse character, and perhaps the exact requirements should be more clearly stated for future years.

The class for Fancy or Ornamental Butter had 5 entries, and the prizewinning exhibits were all exceptionally fine.

The classes for Colonial Butter were again very well filled, and the Judges report that the quality was very good, the prizewinners having a wonderful uniformity in the flavour, texture and colour, reflecting great credit on the makes. Canada, New South Wales, and Queensland samples were the most numerous, but closely followed by South Australia and Victoria.

The class for a Collection of Colonial Dairy Produce, to include Bacon, Dead Poultry and Eggs, brought two very interesting exhibits.

CREAM.

The class for Clotted Cream had a fine entry of 21, and at least half of them were splendid Cream.

The class for Cream (other than Clotted) also had a fine entry of 26, and the prizewinners were excellent.

BOTTLED FRUITS.

Two of the classes for Bottled Fruits had to be cancelled for lack of entries, and the exhibits in the remaining classes were not good, showing poor grading and packing of the Fruit in the bottles. There were only 2 entries in the class for 6 Bottles of Vegetables, and the class for 3 Bottles was cancelled.

The Jams showed a decidedly higher standard than the Bottled Fruits. To the combined exhibit of Bottled Fruits, Vegetables, Jams, Fruit Jellies, Pickles and Chutneys, considerable praise is due, and the Silver Medal is recommended for the exhibits of the St. Weonards Women's Institute in this class.

HONEY.

The entries in the Honey Classes were only half those of last year and did not call for any special mention except that the class for Six Jars of Light Extracted Honey was the best that the Judge had seen at any Show. The prizes, generally, were won by Exhibitors from all over the country, no one district predominating.

The class for Colonial Honey brought only 3 entries, all made by the same Beekeepers' Association, viz., that of Ontario.

ROOTS.

Again the Root Classes made a specially good display. The class for Globe Mangolds was won by Mr. D. Thomas, from the Cardiff district, with Sutton's Seeds; the 2nd going to the same district, but with Webb's Seeds.

In the class for Golden Tankard Mangolds all four distinctions go to Sutton's Seeds, and two emanate from the Cardiff district. Again, in the Intermediate Mangold Class the Cardiff district is well to the fore.

Swedes in the South seem to have suffered from the June drought, and prizes mostly go Northwards, though the Cardiff district comes in occasionally. Scotland claimed all the honours in the Turnip Class. The collection of Cabbages was undoubtedly the feature of this section of the Show—the winning cabbages turning the scale at 85 lbs., 78 lbs. and 72 lbs. each, and were grown from home-saved seed. The class for Kohl-Rabi made an excellent display, 1st prize going to the Ampleforth College, near York, and grown from Carter's Seed. A very fine show of Marrow Stem Kale was made, and the prizes were well distributed over different districts.

Four entries were made in the class for a Collection of Roots for Cattle-Feeding in Winter, and 1st prize went to Mr. W. Watts, of Cowbridge, and the 2nd to Ampleforth College, near York, with very little to distinguish between the two.

JUNKET MAKING CONTESTS.

Junket Making Competitions were as popular as ever, and the public showed their appreciation by being willing to buy unlimited quantities.

BUTTER MAKING CONTESTS.

The entries in the Butter Making Competitions in the centre Dairy were about up to average, and some very good work was done.

The Champion Contest brought 20 entries, and produced one of the best and closest competitions the Judge had ever seen, and it was extremely difficult to find the winner when all were so close up.

MILKERS' CONTESTS.

For the first time in history, covered buckets were obligatory for these contests, but this seemed to make but little difference in the number of entries, and no insuperable difficulties were experienced by the competitors.

As already stated, Nature provided that Milk should *never* be exposed to the atmosphere, and this preference for Covered Buckets, Covered Coolers and Sealed Churns, which Science has taught us, are only so many practical steps towards returning (as far as possible) to Nature.

The competitions throughout were very carefully judged, and precautions were taken to make a rough estimate of the cleanliness of each sample of milk produced, thus bringing new features into these most useful contests.

COW-JUDGING COMPETITIONS.

Eight entries were made for the Cow-Judging Contest, open to teams of Students from the Agricultural Colleges, Farm Institutes, and County Council Classes, and a very good competition resulted.

The Association's Challenge Cup was awarded to the Team from the East Anglian Institute of Agriculture, Chelmsford, for the second year in succession.

The Cow-Judging Contest, open to members of the Young Farmers' Clubs, brought 6 entries, and raised a considerable interest amongst the public.

The Silver Cup was won by the Sussex Baby Beef Club, and the Silver Medal of the British Dairy Farmers' Association for the Competitor gaining the highest points was awarded to Miss E. Harriott, (South Eastern Farmers' Calf Club). The two Bronze Medals of the Association for the competitors gaining the 2nd and 3rd highest points were won by John Harper and Edward Wise, respectively (both of the Sussex Baby Beef Club).

THE COW-JUDGING CONTEST, OPEN TO YOUNG FARMERS' CLUBS.

Breed	...	...	Friesian.	Shorthorn.	Jersey.	Placing.			Reasons.			Delivery.			Total.
						30%			50%			20%			
Judge's Placing															
						Jy.	Sh.	Fr.	Jy.	Sh.	Fr.	Jy.	Sh.	Fr.	
NORTHEAST JERSEY CLUB—															
Dorothy Dean	...	...	C	B	A	22	30	12	50	50	25	20	20	20	249
Ronald Knight	...	...	A	B	C	24	30	12	50	50	25	20	20	18	249
Percy Ladbetter	...	...	B	A	C	24	24	22	40	30	25	20	18	16	219
UNITED DAIRIES KINGSLERE CLUB—															
May Bambury	...	...	C	B	A	24	30	24	40	50	35	20	20	18	261
M. A. Layley	...	...	B	C	A	24	30	30	20	25	20	14	16	14	193
Jack Hitchings	...	...	A	B	C	30	30	12	30	30	25	18	18	16	209
KIRKFOOD CLUB—															
Edgar Miles	...	...	C	B	A	24	22	24	20	25	25	16	16	16	188
Doris Stickland	...	...	C	A	C	30	24	15	30	20	20	18	16	16	189
Maurice Tobbutt	...	...	B	C	B	24	22	30	30	30	40	16	16	20	228
S. E. FARMERS' (HEATHFIELD) CLUB—															
Edith Harriott	...	...	C	B	A	30	30	24	50	50	40	20	20	20	284
Mabel Harriott	...	...	C	B	C	30	30	24	35	35	35	18	18	20	245
Mabel Hook	...	...	C	A	B	13	30	15	30	35	30	18	18	20	209
SUSSEX BABY BEEF CLUB—															
Grace Cornford	...	...	C	B	A	30	22	24	45	30	30	18	18	20	237
John Harper	...	...	C	B	C	30	30	24	50	50	40	18	20	20	282
Edward Wise	...	...	C	B	C	30	30	24	50	40	45	20	18	20	277

Teams—Order of Placing.	Summary Points.	Highest Individual Competitors.	Points.
First—Sussex Baby Beef Club (winners of "Agricultural Gazette" Cup)	796	First— <i>Edith Harriott</i> (winner of Silver Medal, presented by B.D.F.A.)	284
Second—Heathfield Calf Club	738		
Third—Northeast Jersey Calf Club	717	Second— <i>John Harper</i> (winner of Bronze Medal, presented by B.D.F.A.)	282
Fourth—Kingsclere Calf Club	663	Third— <i>Edward Wise</i> (winner of Bronze Medal, presented by B.D.F.A.)	277
Fifth—Kirdford Calf Club	605		

THE DAIRY SHOW MILKING TRIALS OF 1925.

By J. MACKINTOSH, O.B.E., N.D.A., N.D.D.

THE Milking Trials during the 1925 Show were carried out on the same general lines as in previous years. The awards were made on the following scale of points :—

One point for every 10 days since calving, deducting the first 40 days, with a maximum of 12 points.

One point for every pound of milk, taking the average of two days' yield.

Twenty points for every pound of butter fat produced.

Four points for every pound of "solids-other-than-fat."

Deductions are made of 10 points each time the fat falls below 3 per cent., and 10 points each time the "solids-other-than-fat" falls below 8.5 per cent.

New rulings by the Council also came into operation for the first time with the 1925 Show. These rules are to the following effect :—

"Any cow or heifer whose milk for any one milking falls below 3 per cent. fat, and at the same milking also falls below 8.5 per cent. "solids-other-than-fat" shall not be eligible for any awards or trophies on Inspection, in the Milking Trials, or Butter Tests."

"The Milking Trial Judges shall have power to weigh the milk yielded by any cow or heifer at any milking from Sunday morning, October 18th, until Friday evening, October 23rd, and take samples for analysis therefrom."

Number of Entries.—The number of entries compared very favourably with those of the previous year, namely, 434 cows, as against 425 in 1924, and 18 entries in the classes for goats, as compared with 30 in 1924.

Number of Competitors.—The total number of competing animals present in the Show amounted to 226 cows and 16 goats. Details of the number of entries and the number actually present in each class is given in Table I, but it must be mentioned that the outbreak of Foot and Mouth Disease which occurred during the week-end previous to the opening of the Show, necessitated the removal of 26 animals which had actually arrived at the Hall. These animals were, therefore, not able to compete, and two classes, namely, 21 and 27, suffered more seriously than others, inasmuch as four animals in each of these classes had to leave the Hall under the restrictions imposed.

Number of Breeds represented—Thirteen distinct breeds were represented at the Show, and it is worthy of note that there were sufficient entries in each of the 31 classes provided for cattle to warrant the class being held. In other words, none of the classes provided by the Society had to be cancelled because of lack of entries. New classes were provided at the 1925 Show for Dairy South Devons entered in or eligible for the Herd Book of the Recorded Dairy South Devon Cattle Society, and for Jersey cows born after August 1st, 1920, and previous to August 1st, 1922. There was also only one class for Jersey heifers, whereas in previous years a class had been provided for Jersey heifers bred in England, and one for Jersey heifers bred in the Island of Jersey.

Highest Points Gained by a Cow.—The highest score of points made by a cow milked twice daily was 165·2 points, gained by an Ayrshire cow, No. 269. This high total was closely followed by a British Friesian cow, No. 139, with a total of 162·3 points. These high totals, however, do not approach the record of the Show for cows milked twice daily, which is still held by a British Friesian cow exhibited in 1921, which gained 173·8 points. It is worthy of note that in the classes at the recent Show for cows milked three times daily, one animal attained the high total of 176·8 points.

Highest Milk Yield.—The highest daily yield on the average of the two days for cows milked twice daily was 79·4 lbs., given by the Ayrshire cow, No. 269. This high yield, however, was exceeded in 1921 by a British Friesian cow which gave 82·3 lbs. A still higher yield was attained by one of the cows milked three times daily. In this class, cow No. 431 averaged 94·4 lbs. milk for the two days, the highest yield of milk ever given during any Dairy Show. This cow, however, lost 10 points because the percentage of fat in the milk on one morning fell below 3 per cent.

The highest yield of milk at one milking was 47·5 lbs., given by cow No. 158, but, unfortunately, the milk produced at this milking fell below the standard both in fat and “solids-other-than-fat.” So far as mere quantity is concerned, this yield approaches very closely the record yield of 47·6 lbs., given by a non-pedigree Dairy Shorthorn in 1921.

Discussion continues around the question of milking cows three times daily at the Dairy Show, and on this point it is interesting to note that at the recent Show, 35 lbs. milk or more was produced at one milking on 39 occasions by 23 different animals. These 23 animals were drawn from eight different breeds, namely:—

Dairy Shorthorn	Red Poll
Lincoln Red	Blue Albion
British Friesian	Ayrshire, and
South Devon	Kerry.

NOTES ON CLASSES.

Class 1. Pedigree Dairy Shorthorn Cow over 5 years old.—Entries 26; present 12.—This class did not contain any outstanding animal in fact the average number of points gained was less than last year. Five cows failed to reach the standard of the class. The first prize of the class and the Desborough Cup were won by Major S. P. Yates' cow "Rickerscote Foggathorpe" (No. 3) with 132.9 points. The second prize and reserve for the Desborough Cup was awarded to "Pencoyd Blanche 2nd (No. 6)" with 127.2 points, owned by Mr. T. P. Preece. It is worthy of note that this cow tied for first place in Class 2 at the 1924 Show.

Class 2. Pedigree Dairy Shorthorn Cow over 3 and under 5 years.—Entries 22; present 10. The average number of points gained by this class showed a slight improvement on last year, but it is unsatisfactory to record that four animals out of the 10 present fell appreciably below the class standard of 83 points. The first prize was won by Mr. T. Tustian's "Greattew Darling" (No. 36) with a total of 123.4 points, and the second prize was obtained by Major R. F. Fuller's "Chalfield Valentine" (No. 30) with 113.2 points. The extra prize of £10 offered by the Shorthorn Society for the cow exhibited in Classes 1 or 2 gaining most points on Inspection and in the Milking Trials was divided between the above-mentioned two animals.

Class 3. Pedigree Dairy Shorthorn Heifer.—Entries 26; present 13. The number of animals present in this class showed a welcome increase on last year, and the average number of points gained also showed an appreciable rise. Five animals out of the 13 present, however, failed to reach the class standard of 66 points. The first prize was awarded to Mr. E. A. Smith's "Longhills Darlington 3rd" (No. 72) with 101.8 points, and the second prize was awarded to Mr. G. P. Golden's "Lady Doreen 9th" (No. 68) with 87.8 points.

Class 4. Non-Pedigree Dairy Shorthorn Cow.—Entries 16; present 6. This class showed a notable falling off from previous years in both number of entries and number of animals present. Nevertheless a high standard was attained, and only one animal failed to reach the class standard of 110 points. The first prize in the class, the Dairy Shorthorn Association extra prize of £10 and the Morrison Trophy were all gained by Mr. A. B. Croxon's cow "Spot" (No. 77) with 145.9 points. Last year this cow was also first in the class and was reserve for a number of cups. The second prize was awarded to Messrs. Kidner Bros.' "Stokely Cross Beauty" (No. 75) with 131.7 points.

Class 5. Non-Pedigree Dairy Shorthorn Heifer.—Entries 13; present 3. Again a poor entry has to be recorded in this class, and the number of animals present was only three. The first prize was awarded to Mr. J. H. Robinson's "Watercreek Ruby" (No. 96) with 94.6 points.

Class 6. Lincolnshire Red Shorthorn Cow.—Entries 14; present 11. This class showed a remarkable improvement on the corresponding class last year. The average number of points gained by nine animals last year was 93·8, whereas 11 animals in 1925 averaged 115·4. Three animals failed to reach the class standard of 100 points. The first prize was awarded to Messrs. J. Evens & Son's "Burton Amy 7th" (No. 104) with 149·9 points. The same exhibitor's cow "Burton Hempy 6th" (No. 107) gained the second prize with 145·8 points.

Class 7. Lincolnshire Red Shorthorn Heifer.—Entries 13; present 5. Although the number of animals present in this class was low they attained a high average standard, all animals exceeding the class standard of 66 points, the average being 84·6 points. The first prize was awarded to Mr. S. Reading's "Langford Polly 18th" (No. 122) with 108·0 points, and Messrs. J. Evens & Son gained the second prize with "Burton Hempy 9th" (No. 126), 93·2 points.

Class 8. British Friesian Cow over 5 years old.—Entries 24; present 14. This class maintained the uniformly high standard which has been set by the British Friesian cows in recent years, the average number of points gained being 123·8. Four cows, however, suffered deductions through the percentage of fat in the milk falling below 3 per cent., and several also lost points through the percentage of solids-other-than-fat falling below 8·5 per cent. The first prize was awarded to Mr. S. Pyman's "Felhampton Susan" (No. 139) with 162·3 points. This cow also gained the Spencer Cup and was reserve for the Gold Medal, the Barham Cup, and the Shirley Cup. The second prize was awarded to "Haydon Pax" (No. 137), owned by the Hache Herd, with 155·1 points.

Class 9. British Friesian Cow over 3 and under 5 years.—Entries 20; present 7. The comparatively small number of cows present in this class also showed a high standard of merit, the average number of points gained being 119·8, and only one cow failed to reach the class standard of 91 points. The first prize was awarded to Mr. C. W. H. Glossop's "Lund (imported 1922) Blanche 22nd" (No. 159) with 137·0 points. Mr. B. Parkinson's "Thurston Karel's Emily" (No. 164) was second with 135·1 points, and Mr. W. Twentymann's "Winchester Musk" (No. 171) was a good third with 134·1 points. This cow unfortunately had 10 points deducted for the fat percentage falling below 3 per cent.

Class 10. British Friesian Heifer.—Entries 13; present 3. The number of animals present in this class was regrettably low. The first prize was awarded to Mr. J. Bromet's "Golf Dorrit 2nd" (No. 185) with 99·5 points, closely followed by Mr. E. Furness' "Hamels Eleanor" (No. 182) with 97·8 points.

Class 11. South Devon Cow eligible in or entered for the Herd Book of the South Devon Herd Book Society.—Entries 4; present 2. This class contained one outstanding animal, namely, "Snowdrop 2nd".

(No. 189), owned by Mr. G. Wills. This cow obtained 145·7 points, and also gained the Silver Cup presented by the South Devon Herd Book Society, and the South Devon Herd Book Society's extra prize of £5.

Class 12. Dairy South Devon Cow entered in or eligible for the Herd Book of the Recorded South Devon Cattle Society.—Entries 9; present 6. This class was held at the Dairy Show in 1925 for the first time, and made a most creditable appearance. The first prize was awarded to "Luson Milkmaid" (No. 194) with 119·5 points, owned by Mr. G. Furneaux, and Mr. R. Hall's "Ferry Lady" (No. 192) obtained the second place with 111·7 points.

Class 13. Devon Cow.—Entries 9; present 8. The number of entries in this class showed a welcome increase over recent years. The standard of excellence, however, was not very uniform, as three cows out of the eight present failed to attain the breed standard of 90 points. The first prize was gained by Mr. A. T. Loram's "May" (No. 206) with 135 points, and the same exhibitor's cow "Janet" (No. 205) was second with 127·7 points.

Class 14. Red Poll Cow born before August 1st, 1920.—Entries 9; present 6. The number of entries was smaller than that of recent years, but a distinctly higher standard of milk production was attained. The class as a whole averaged 125·4 points, and only one animal failed to reach the class standard of 100 points. The first prize was gained by the Duchess of Newcastle with "Hardwick Ashberry" (No. 208) with 146·4 points. Major J. A. Morrison's "Hutton Dahlia 2nd" (No. 212) was second with 135·9 points, closely followed by "Gressenhall Red Berry" (No. 216), the property of Mr. W. R. Glazebrook, jnr. The six cows exhibited in this class constituted the reserve breed team for the Bledisloe Trophy.

Class 15. Red Poll Cow born between August 1st, 1920, and August 1st, 1922.—Entries 6; present 4. This small class attained a satisfactory standard, only one animal failing to reach the class standard of 83 points. The first prize was awarded to "Saham Leczie" (No. 221), the property of Mr. C. F. Newton, with 116·5 points. This cow was also awarded one of the Red Poll Cattle Society's prizes of £5, for the points gained by inspection and in the Milking Trials. Mrs. R. M. Foot's "White Hill Pansy" (No. 219) made a good second with 114·5 points.

Class 16. Red Poll Heifer.—Entries 15; present 5. The number of animals forward in this class was very disappointing, but it was, nevertheless, gratifying that the average points gained showed an appreciable increase on the last two years. Only one out of the five animals present failed to reach the class standard of 66 points. The first prize and the Red Poll Cattle Society's prize of £5 was awarded to Mr. C. F. Newton's "Saham Darker Draught" (No. 229) with 107·4 points, and the second prize by Major J. A. Morrison's "Basildon Plotter 2nd" (No. 225) with 106·6 points.

Class 17. Blue Albion Cow.—Entries 9; present 5. The cows present in this class were by far the best entry of the breed that has yet appeared at the Dairy Show. It is interesting to note that the average live weight of the Blue Albion cows at the Dairy Show has increased in each of the last three years. In 1923 the average live weight was 10 cwt. 73 lbs.; in 1924 11 cwt. 44 lbs.; and in 1925 12 cwt. 73 lbs. This class also gained the highest average number of points for any breed, with an average of 128.3 points, as compared with a class standard of 100 points. One cow only failed to reach the latter figure. The first prize was awarded to "Pike Verocity" (No. 241) with 145.2 points. This cow yielded an average of 69 lbs. of milk for the two days of the trials, and was exhibited by Mr. J. D. Seals. The same exhibitor's "Pike Venice" (No. 243) was awarded the second prize with 137.6 points.

Class 18. Welsh Black Cow.—Entries 5; present 2. The first prize in this class was awarded to Mr. C. W. Crompton with "Hall Green Gift" (No. 251) with 108.1 points.

Class 19. Ayrshire Cow.—Entries 28; present 16. The number of entries and the number of cattle present constituted a record for this class at the Dairy Show, and in addition to numbers a very high level of all-round excellence was attained, the 16 animals averaging 121.7 points, as compared with a class standard of 90 points. Only three animals failed to attain the latter figure, and each of these three lost from 10 to 20 points on the quality of the milk. The first prize cow in this class, "Millantae Mayflower" (No. 269), the property of Mr. J. Johnston, averaged 79.4 lbs. of milk and gained 165.2 points. In addition to first prize, this cow gained the B.D.F.A. Gold Medal, the Barham Cup, the Shirley Cup, and the Rowallan Cup, and was also reserve for the Spencer Cup. The second prize was awarded to Messrs. A. & A. Kirkpatrick for "Dalpeddar Flora" (No. 256) with 144.3 points.

Class 20. Ayrshire Heifer.—Entries 21; present 15. The uniformly high standard attained by the entries in this class in recent years was well maintained at the 1925 Show. The average number of points gained by the 15 animals present was 90.4 points, and every animal exceeded the class standard of 60 points. The first prize was awarded to Mr. J. Cochrane's "Byreholm Viper 2nd" (No. 287) with 115.5 points. During the trials this heifer averaged 51.9 lbs. milk daily. She was also reserve for the Rowallan Cup. The second prize was gained by an English exhibitor, Mr. H. J. Clark, with "Kilfillan Fillet" (No. 293) with 99.8 points.

Class 21. Guernsey Cow born before August 1st, 1920.—Entries 17; present 8. This class was unfortunate in that four animals which had arrived in the Hall could not be allowed to remain and compete in the Milking Trials, because of the restrictions following an outbreak of Foot and Mouth Disease. Of the eight remaining to compete no less than six failed to attain the class standard of 85 points.

The first prize was gained by Mr. T. R. Bolitho with "Tregye Maze" (No. 306) with 106.6 points. This cow was also awarded the Stagenhoe Cup. The second prize was gained by Mr. W. F. Trumper's "Dahlia Polly 2nd" (No. 314) with 91.6 points.

Class 22. Guernsey Cow born after August 1st, 1920, and before August 1st, 1922.—Entries 12; present 9. This class as in recent years followed very closely the standard attained by the senior cow class, although the animals were fully 1 cwt. per head lighter on the average. Two out of the nine present failed to attain the class standard of 71 points. The first prize was gained by Mrs. D. Corbett's "Hockley Ivy 2nd" (No. 322) with 98.2 points, and Mr. J. B. Body's "Morland Lady Richmond" (No. 321) was a good second with 97.4 points.

Class 23. Guernsey Heifer.—Entries 9; present 4. This class showed a considerable falling off from the standard of recent years, although the average number of points gained (58.8) was still somewhat above the class standard of 56 points. The first prize was gained by Mr. A. Chester Beatty's "Calehill Peaceful" (No. 329) with 86.9 points.

Class 24. Jersey Cow born before August 1st, 1920.—Entries 17; present 12. The provision of another class (Class 25) for younger Jersey cows resulted in the average live weight of this class being practically 1 cwt. per head heavier than previous years; also the average number of points gained (95.3) showed an improvement. Nevertheless four animals failed to attain the class standard of 90 points. The first prize was gained by Mr. R. Bruce Ward's "Pirouette" (No. 344) with 120.1 points. This cow was also reserve for the National Butter Cup. The second prize was gained by Mrs. H. Briggs with "Lily of the Valley" (No. 352) with 111.9 points, closely followed by the Hon. A. A. P. Henderson's "Windlesham Windflower" (No. 337) with 110.1 points.

Class 25. Jersey Cow born between August 1st, 1920, and August 1st, 1922.—Entries 18; present 11. The excellent entry for the first year of this class shows that it apparently supplies a felt want. The average number of points gained was almost as high as that of the older cows, namely, 92.5, and well above the class standard of 75 points, which was exceeded by every animal competing. The first prize was gained by Mr. G. Cross with "Roberta's Star 2nd" (No. 357) with 111.9 points, and the second prize was gained by "Tidy Mabel" (No. 356), the property of Mr. J. Pierpont Morgan.

Class 26. Jersey Heifer.—Entries 20; present 10. The number of animals present in this class was considerably below the number exhibited in the two classes for Jersey heifers which the schedule provided in previous years, and apparently also the usual standard of excellence was not attained. Five animals out of the ten present failed to attain the breed standard of 60 points. The first prize was awarded to "Doreen" (No. 373), with 91.3 points, the property of

Mr. G. Cross, and Mr. R. Bruce Ward's "Pavlova" (No. 381), made a good second with 89.5 points.

Class 27. Kerry Cow.—Entries 15; present 7. The number of animals present in this class was on the lines of previous years, but four animals were removed from the Hall under the Foot and Mouth Disease restrictions. The standard of excellence of the 1925 Show exhibits was far ahead of anything which this breed has shown at the Dairy Show. In fact, it was only the exceptionally successful exhibit of Ayrshires that prevented the Kerry class from being the main feature of the Show. Every animal present easily exceeded the class standard of 90 points, and the average was 105.6 points. The first prize was gained by Lady Fitzgerald with "Buckland Peace 2nd" (No. 394); this cow, weighing only 8 cwt. 38 lbs., produced 56.8 lbs. of milk daily during the trials and gained 134.2 points—a higher total than was gained by any Pedigree Shorthorn. She was also awarded the National Milk Cup and the Kerry Cattle Society's Cup. The second prize was gained by "Coquet Gipsy" (No. 396) with 123.6 points, the property of Brig.-Gen. L. Palmer, and she yielded no less than 65.1 lbs. milk daily during the trials, but unfortunately lost points on the quality of the morning's milk.

Class 28. Kerry Heifer.—Entries 8; present 3. This class also attained a uniform standard of merit, averaging 69 points compared with a class standard of 53 points. The first prizewinner was "Castlelough Missie" (No. 414) with 69.3 points, the property of Capt. N. Zambra and C. Williamson-Milne. Lady Fitzgerald's "Buckland Emma" (No. 408) made a very close second with 69.2 points.

Class 29. Dexter Cow.—Entries 7; present 3. The first prize in this class was awarded to Mr. Theo. A. Stephens for "Just Found of Hookstile" (No. 421) which gained 86.4 points, and produced 49.1 lbs. of milk during the trials, but unfortunately lost points on the quality of the morning's milk. This cow was also awarded the Nutt Cup. Mr. F. H. Emmott gained the second prize with "Bridesmaid" (No. 420), which obtained 80.7 points.

Class 30. Dexter Heifer.—Entries 4; present 1. The winner of this class was Capt. W. O. Gibbs, with "Barrow Biscuit 2nd" (No. 423).

Class 31. Cows of any Breed milked three times daily.—Entries 8; present 5. The exhibits in this class were more uneven than has been the case at former shows, the individual points gained ranging from 100 to 176.8, and the average number of points was 137.8, as compared with 137.0 and 142.7 at the 1924 and 1923 Shows respectively. The first prize was awarded to Mr. C. B. Tubbs for "Terling Ivory 8th" (No. 431) with 176.8 points. This cow produced the highest yield of milk ever given in the Milking Trials at the Dairy Show, namely, 94.4 lbs. on the average of two days. The second prize was gained by Messrs. W. G. White & Sons for "Larborne Octavia" (No. 428) with 151.4 points. The average yield of milk for the five

animals exhibited was 73.4 lbs., as compared with 73.0 lbs. in 1924 and 75.1 lbs. in 1923. It is worthy of note, also, that each cow in the class lost points on the percentage of fat in the morning's milk.

Class Standard Points.—In the report on the milking trials of the 1923 Show, under this heading, attention is drawn to the uniformly poor performance of the smaller breeds at the Shows immediately preceding and including 1923, and to the comparatively high standard points required by the Association in respect of the Guernsey, Jersey, Kerry and Dexter breeds.

At the 1925 Show there is evidence of a remarkable recovery or improvement in the Jersey, Kerry and Dexter classes, and reference has already been made to the severe handicap imposed on the Guernsey and Kerry breeds by the Foot and Mouth Disease restrictions.

All the animals competing in the milking trials in Classes 20 (Ayrshire heifers), 25 (Jersey young cows), 27 (Kerry cows), 28 (Kerry heifers), and 30 (Dexter heifers), gained the standard points for each class.

At the same time the results of any one Show are not a reliable guide as to whether a breed is improving or falling back. For example, the following columns show the classes at each of the last three Shows which, on the average of all animals present, did not attain the Association's standard points.

1923.	1924.	1925.
Blue Albion Cows.	Dairy Shorthorn Heifers	Guernsey Cows
Guernsey Cows (aged).	(Pedigree).	(aged).
Jersey Cows.	Dairy Shorthorn Cows	
Kerry Cows.	(Non-pedigree).	
Dexter Cows.	Dairy Shorthorn Heifers	
Dexter Heifers.	(Non-pedigree).	
	Lincoln Red Cows.	
	Lincoln Red Heifers.	
	Red Poll Cows (aged).	
	Guernsey Cows (aged).	
	Kerry Cows.	
	Kerry Heifers.	

The above statement also illustrates the high standard of all-round merit reached at the 1925 Show, and this excellence is further emphasised by the fact that in 17 classes the average number of points gained was higher than at either of the last two Shows. In respect of milk yield, points gained in the milking trials and general symmetry and breed type, the 1925 Show surpassed all of the many successful shows held by the Association.

CHALLENGE CUPS AND TROPHIES.

Open to All Breeds.

The number of cups and trophies open for competition between individual animals and groups of the different Breeds increases year

by year. The keenness of the competition is likewise accentuated and the impatience of the competitors to learn the results makes it almost unwise for the Judges to show themselves in the Hall from the time the weighing of the milk is finished until the results are posted.

(1) The *Gold Medal* of the British Dairy Farmers' Association awarded to the owner of the animal gaining the highest points in the Milking Trials.

The Gold Medal was won for Mr. James Johnston, Millantae, Lockerbie, by his Ayrshire cow "Millantae Mayflower" (No. 269) with 165.2 points. This cow averaged 46.9 lbs. milk in the morning with 3.31 per cent. of fat, and 32.5 lbs. in the evening with 3.86 per cent. of fat. Mr. S. Pyman's British Friesian cow, "Felhampton Susan" (No. 133) was reserve with 162.3 points.

(2) The *Barham Challenge Cup*, awarded to the owner of the cow gaining the greatest number of points in the Milking Trials was likewise won by No. 269, with No. 139 as reserve.

(3) The *Spencer Challenge Cup*, awarded to the owner of the cow gaining the greatest number of points by Inspection, Milking Trials and Butter Tests was won by Mr. Pyman's "Felhampton Susan" (No. 139), which in this case turned the tables on her Ayrshire rival by reason of greater excellence in the Butter Test. No. 269 was reserve.

(4) The *Shirley Challenge Cup*, awarded to the owner of the cow giving the greatest weight of milk in the Milking Trials, such milk to contain not less than 3.0 per cent. fat and 8.5 per cent. non-fatty solids, was also won by No. 269, with No. 139 as reserve.

(5) The *National Milk Cup*, awarded to the owner of the cow or heifer, entered in or eligible for the herd book of its breed, gaining the greatest number of points per 1,000 lb. live weight in the Milking Trials, was awarded to Lady Fitzgerald, Buckland, Faringdon, Berks, for her Kerry cow "Buckland Peace 2nd" (No. 394) with 143.7 points per 1,000 lbs., and the reserve was Major C. R. Dudgeon's Ayrshire cow, "Cargen Holm Proud Lady 8th" (No. 254) with 129.2 points per 1,000 lbs.

(6) The *Bledisloe Challenge Trophy*, awarded to the Breed Society adjudged to have the best exhibit of good all round dairy cows. The conditions of this competition may be changed from time to time by the Council of the Association, and at the 1925 Show the conditions of the previous year were adhered to. The cows to compete on behalf of each breed were the six in the senior class with the highest points in the Milking Trials, provided that such animals have been passed by the Inspection Judge as typical specimens of their respective breeds.

The total number of points gained by each team of six consists of the milking trial points of each animal, plus inspection points on the basis of 100 points for first prize, 90 points for second, 80 points for third, and 70 points for the fourth place. Eleven teams competed, compared with nine in 1924 and 1923. The points gained by each team are set out in the following pages.

THE BLEDISLOE TROPHY TEAMS AND POINTS GAINED, DAIRY SHOW, 1925.

Class 1—Pedigree Shorthorns.					Class 4—Non-Pedigree Shorthorns.					Class 6—Lincoln Red Shorthorns.				
No. in Catalogue.	Milk Trial Points.	Insp. Points.	Total Points.		No. in Catalogue.	Milk Trial Points.	Insp. Points.	Total Points.		No. in Catalogue.	Milk Trial Points.	Insp. Points.	Total Points.	
3	132.9	—	132.9		77	145.9	100	245.9		104	149.9	80	229.9	
6	127.2	70	197.2		75	131.7	70	201.7		107	145.8	—	145.8	
26	124.6	—	124.6		80	129.3	—	129.3		111	136.4	—	136.4	
10	122.7	80	202.7		90	124.1	80	204.1		106	122.6	—	122.6	
15	115.0	—	115.0		81	115.9	90	205.9		113	121.4	—	121.4	
11	112.3	100	212.3		84	83.1	—	83.1		115	121.0	—	121.0	
	734.7	250	984.7			730.0	340	1070.0			797.1	80	877.1	
Class 8—British Friesians					Class 12—Dairy South Devons.					Class 13—Devons.				
139	162.3	90	252.3		194	119.5	80	199.5		206	135.0	—	135.0	
137	155.1	—	155.1		192	111.7	70	181.7		205	127.7	—	127.7	
134	151.9	—	151.9		190	108.8	90	198.8		203	113.2	—	113.2	
148	151.7	70	221.7		198	108.1	100	208.1		202	101.0	70	171.0	
151	142.6	—	142.6		197	96.5	—	96.5		201	98.8	90	188.8	
153	133.6	—	133.6		196	76.8	—	76.8		204	87.2	—	87.2	
	897.2	160	1057.2			621.4	340	961.4			662.9	160	822.9	

THE BLEDISLOE TROPHY TEAMS AND POINTS GAINED, DAIRY SHOW, 1925—Continued.

Class 14—Red Polls.					Class 21—Guernseys				
No. in Catalogue.	Milk Trial Points	Insp. Points	Total Points.	No. in Catalogue.	Milk Trial Points.	Insp. Points.	Total Points.	No. in Catalogue.	Milk Trial Points.
208	146.4	80	226.4	269	165.2	100	265.2	306	106.6
212	135.9	90	225.9	256	144.3	90	234.3	314	91.6
216	134.4	—	134.4	264	140.7	70	210.7	308	83.2
211	127.5	—	127.5	257	137.0	80	217.0	307	77.2
215	113.1	100	213.1	271	135.6	—	135.6	298	70.7
213	95.3	70	165.3	254	132.5	—	132.5	312	70.4
	752.6	340	1092.6		855.3	340	1195.3		499.7
									749.7

Class 24—Jerseys.					Class 27—Kernes.				
344	120.1	100	220.1	394	134.2	100	234.2		
352	111.9	—	111.9	396	123.6	80	203.6		
337	110.1	—	110.1	406	103.1	—	103.1		
351	107.7	—	107.7	398	98.5	70	168.5		
342	107.3	—	107.3	399	97.9	—	97.9		
353	107.3	—	107.3	397	95.2	90	185.2		
	664.4	100	764.4		652.5	340	992.5		

The following is a summary in order of placing :—

CLASS NO.	Milk Trial Points.	Inspection Points.	TOTAL.	
19 Ayrshires	855.3	340	1195.3	Winner.
14 Red Polls	752.6	340	1092.6	Reserve.
4 Non-Pedigree Shorthorns	730.0	340	1070.0	
8 British Friesians ...	897.2	160	1057.2	
27 Kerries	652.5	340	992.5	
1 Pedigree Shorthorn ...	734.7	250	984.7	
12 Dairy South Devons ...	621.4	340	961.4	
6 Lincoln Red Shorthorns	797.1	80	877.1	
13 Devons	662.9	160	822.9	
24 Jerseys	664.4	100	764.4	
21 Guernseys	499.7	250	749.7	

The Ayrshire Cattle Herd Book Society hold the Trophy for the third year in succession, with the Red Poll Cattle Society as Reserve.

(7) The *Morrison Challenge Trophy*, awarded to the owner of the cow exhibited at three consecutive Dairy Shows gaining the greatest number of points on the following basis :—Milking Trials, points above class standard ; Butter Tests, three times the points above class standard ; Inspection, first prize 40 points, second prize 30 points, third prize 20 points, fourth prize or reserve 10 points.

Four cows were entered for this trophy and three were present at the Show. The winner was Mr. A. B. Croxon, Burnham-on-Crouch, Essex, with the non-pedigree Shorthorn cow "Spot" (No. 77), and the reserve was Lt.-Col. R. E. Cecil, Lymington, Hants, with the Ayrshire cow "Netherton Queen Greenfield 4th" (No. 253).

The winner's record at the Shows of 1923, 1924, and 1925 is a remarkably good one, and is set out in full below :—

Year.	Catalogue No.	Milking Trials.			Butter Tests.			Inspection.	
		Points.	Standard.	Net Points.	Points.	Standard.	Net Points.	Award.	Points.
1923	97	166.6	110	56.6	52.5	34	55.5	—	—
1924	67	142.5	110	32.5	40.5	34	19.5	2nd	30
1925	77	145.9	110	35.9	36.0	34	6.0	1st	40
Totals				125.0				81.0	70

GRAND TOTAL ... 276.0 points.

(8) The *Robert L. Mond Special Prize* of £10 awarded to the owner of the two animals, competing in the Milking Trials, which are the progeny of a registered bull of the same breed, and which gain the largest number of points above their class standard, and are certified as true to type by the Class Inspection Judge.

Entries for this prize have been very limited in numbers in past years, but in 1925 there were 13 entries, comprising five Ayrshire bulls, three Dairy Shorthorns, two Lincoln Red Shorthorns, two Jerseys, and one British Friesian.

The winner was found to be Mr. John Cochrane, Thornhill, Dumfriesshire, with two Ayrshire heifers, the progeny of the bull "Cairnmill Lord Glenside" (20970); the second prize of £5, donated by the Countess de la Warr, was won by Major C. R. Dudgeon, Cargen Holm, Dumfries, with an Ayrshire cow and heifer, the progeny of the bull "Thornhill Mount Royal" (19147); another two heifers owned by the same exhibitor and by the same bull came next in order of position, followed by two Lincoln Red Shorthorn heifers exhibited by Mr. J. Evens, Lincoln.

The points gained by the leading competitors are given below :—

Progeny of Cairnmill Lord Glenside (20970). (Ayrshire.)

Catalogue No.	Milking Trial Points.	Class Standard.	Balance.	Total.
287 Byreholm Viper 2nd	... 115.5	60	55.5	} 85.3
288 Byreholm Diamond...	... 89.8	60	29.8	

Progeny of Thornhill Mount Royal (19147) (Ayrshire.)

254 Cargen Holm Proud Lady 8th	132.5	90	42.5	} 80.3
279 Cargen Holm White Stockings 10th	97.8	60	37.8	
280 Cargen Holm Miss Robb 15th	96.5	60	36.5	} 71.4
278 Cargen Holm Proud Lady 10th	94.9	60	34.9	

Progeny of Burton Moulton (11400). (Lincoln Red.)

106 Burton Ethel 8th	122.6	100	22.6	} 68.4
107 Burton Hempy 9th	145.8	100	45.8	

In view of the keen interest taken in the inter-breed aspect of the competition for the above cups and trophies, it is interesting to tabulate the breed of the winner and the reserve in each case.

	Breed of Winner.			Breed of Reserve.		
B.D.F.A. Gold Medal	... Ayrshire	...	...	British Friesian.	...	...
Barham Cup	... Ayrshire	...	...	British Friesian.	...	...
Spencer Cup	... British Friesian	...	...	Ayrshire.	...	...
Shirley Cup	... Ayrshire	...	...	British Friesian.	...	...
National Milk Cup	... Kerry	...	...	Ayrshire.	...	...
Bledisloe Trophy	... Ayrshire	...	...	Red Poll.	...	...
Morrison Trophy	... Dairy Shorthorn (non-pedigree)	...	...	Ayrshire.	...	...
R. L. Mond Prize	... Ayrshire	...	...	Ayrshire.	...	...

The following tables supply much valuable information on the performances of the different breed classes at the 1925 and other recent Shows, and affords opportunities for many interesting comparisons :—

Table I contains in summarised form the entries, the average live weight, milk yield, fat percentage and points earned and lost in each class, also the average milk yield and points per 1,000 lbs. live weight.

Table II shows the number of cows and heifers tested, average points gained, number of animals attaining the Association's standard points, and average live weights of each class at the last three Shows.

Table III shows the average points gained in the Milking Trials each year since 1913.

Table IV shows the highest points gained in each class each year since 1913.

Table V shows the average yield and quality of the milk yielded by each class at the 1925 Show.

Table VI shows the number of animals yielding milk deficient in fat and solids-other-than-fat in each class of each Show since 1914.

TABLE I.

[illegible]

TABLE II.—SHOWING NUMBER OF COWS TESTED, AVERAGE POINTS GAINED AND THE NUMBER OF COWS ATTAINING THE SOCIETY'S STANDARD—1923 TO 1925.

Class.	Description.	B. D. F. A. Standard Points.	No. of Cows Tested.			Average Points Gained.			Number and Percentage of Cows above Standard					Average Live Weight of Class.				
			1923	1924	1925	1923	1924	1925	1923	%	1924	%	1925	%	1923	lb. cwt.	1924	1925
1	Dairy Shorthorn—Pedigree	100	17	9	12	114.4	109.5	108.2	12	70.6	7	77.7	7	58.3	12	1612	24.11	58
2	Ditto (over 3 and under 5 years)	83	7	15	10	100.9	88.3	92.8	6	85.7	9	60.0	6	60.0	11	85.11	51.11	92
3	Ditto Heifers	66	13	6	13	67.2	61.0	73.3	6	46.1	2	33.3	8	61.5	9	109.10	20.10	34
4	Dairy Shorthorn—Non-Pedigree	110	11	15	6	111.4	93.0	121.7	5	45.4	3	20.0	5	83.3	12	71.2	64.12	50
5	Ditto Heifers	73	9	2	3	88.7	66.8	73.3	8	88.8	1	50.0	2	66.6	10	87.10	5.10	14
6	Lincoln Red Shorthorn	100	10	9	11	114.2	93.8	115.4	9	90.0	3	33.3	8	72.7	12	75.12	55.12	6
7	Ditto Heifers	66	7	8	5	88.9	65.1	84.6	6	85.7	4	50.0	5	100.0	10	30.10	67.10	48
8	British Friesian	110	4	9	14	122.9	118.2	123.8	2	50.0	6	66.6	9	64.3	12	83.12	106.12	49
9	Ditto (over 3 and under 5 years)	91	11	16	7	117.4	108.8	119.8	11	100.0	13	81.3	6	85.7	12	212	16.13	13
10	Ditto Heifers	73	2	6	3	75.6	85.0	87.9	1	50.0	4	66.6	2	66.6	12	28.11	36.11	105
11	South Devon (Herd Book Soc.)	100	3	—	2	114.9	—	114.9	2	66.6	—	—	1	50.0	14	39	—	14
12	South Devon (Rec. Cattle Soc.)	100	—	6	—	—	—	103.6	—	—	—	—	4	66.6	—	13	10	53
13	Devon	90	5	3	8	99.7	93.6	103.2	4	80.0	2	66.6	5	62.5	11	39.10	20.11	82
14	Red Poll	100	6	7	6	116.7	92.1	125.4	4	66.6	2	28.8	5	83.3	10	36.10	79.11	83
15	Ditto (over 3 and under 5 years)	83	9	10	4	95.5	89.6	97.7	7	77.7	6	60.0	3	75.0	10	65.10	5.10	62
16	Ditto Heifers	66	6	9	5	72.0	71.5	86.0	5	83.3	6	66.6	4	80.0	9	46.10	52.10	30
17	Ble Albion	100	2	6	5	78.3	100.3	128.3	0	Nil	4	66.6	2	100.0	10	73.11	44.12	73
18	Welsh Black	90	—	8	2	128.5	134.1	104.1	—	—	—	—	2	80.0	—	—	10	42
19	Ayrshire	90	6	10	16	128.5	134.1	121.7	5	83.3	8	100.0	13	81.3	10	16.10	90.10	96
20	Ditto Heifers	60	10	10	15	87.6	93.2	90.4	9	90.0	10	100.0	15	100.0	9	13.9	73.9	100
21	Guernsey	85	4	5	8	77.0	77.4	77.5	1	25.0	1	20.0	2	25.0	8	76.9	37.9	55
22	Ditto (over 3 and under 5 years)	71	6	8	9	97.0	82.3	76.6	6	100.0	6	75.0	7	77.7	8	62.8	47.8	12
23	Ditto Heifers	56	2	9	4	77.5	76.2	68.8	1	50.0	8	88.8	3	75.0	7	36.7	79.7	55
24	Jersey	90	22	16	12	89.8	91.9	95.3	12	54.5	9	56.3	8	66.6	7	57.7	48.8	45
25	Ditto (over 3 and under 5 years)	75	—	11	—	—	—	92.5	—	—	—	—	11	100.0	—	—	—	7
26	Ditto Heifers	60	16	34	10	70.8	87.7	68.7	13	81.3	24	70.6	5	50.0	6	74.7	41.6	107
27	Kerry	80	7	9	7	67.8	69.9	105.6	4	57.1	6	66.6	7	100.0	8	8	73.8	50
28	Ditto Heifers	53	4	5	3	87.0	79.6	69.0	1	25.0	1	20.0	3	100.0	6	57.6	48.6	65
29	Dexter	70	4	—	3	49.0	38.6	78.8	1	25.0	—	—	2	66.6	6	7	—	6
30	Ditto Heifers	47	4	2	1	46.6	58.9	53.8	2	50.0	2	100.0	1	100.0	4	82.5	52.4	96
31	Any Breed, Milked 3 times daily	—	5	3	5	142.7	137.0	137.8	—	—	—	—	—	—	12	48.12	79.12	69

TABLE III.—AVERAGE POINTS GAINED IN THE MILKING TRIALS EACH YEAR SINCE 1913.

Year.	Daily Short-horns. Pedfere.	Daily Short-horns. Ped. 3 & 5 yrs.	Daily Short-horns. Ped. Hefers.	Daily Short-horns. Non-Pedfere.	Daily Short-horns. Hefers.	Lincolnshire Red Short-horn Cows.	Lincolnshire Red Short-horn Hefers.	British Friesian Hefers.	British Friesian Cows.	South Devon Cows.	Devon Cows.	Red Poll Cows.	Red Poll Hefers.	Blue Allion Cows.	Ayrshire Cows.	Ayrshire Hefers.	Guernsey Cows.	Guernsey Hefers.	Jersey Cows.	Kerry Cows.	Kerry Hefers.	Dexter Cows.
1913	95.2	—	63.2	117.1	75.2	95.7	69.0	—	—	103.9	—	95.5	68.8	—	107.6	—	77.3	—	90.4	68.3	—	—
1914	106.5	—	62.4	106.9	73.6	96.3	67.7	80.7	—	108.5	—	127.6	65.5	—	—	—	85.5	—	89.8	—	—	—
1915	103.5	—	65.5	118.5	75.7	94.9	57.9	92.3	—	78.0	—	89.0	66.0	—	—	—	82.6	—	76.5	—	—	61.3
1919	95.2	75.4	59.6	95.0	89.2	98.4	68.3	83.1	70.7	—	85.6	88.8	78.0	—	—	—	84.8	54.6	80.3	69.6	—	53.6
1920	97.4	79.7	60.9	111.8	76.9	85.6	86.0	98.2	67.0	—	108.5	91.8	72.1	—	—	—	84.2	63.9	85.5	72.1	54.0	40.4
1921	103.9	96.3	61.6	117.5	73.5	105.3	88.1	133.6	78.8	104.4	107.8	83.0	69.5	—	106.7	—	92.8	67.1	76.3	76.5	49.3	57.8
1922	107.7	94.9	72.1	108.1	73.0	113.2	71.4	120.2	79.3	100.5	98.7	91.5	64.7	—	95.7	78.5	88.4	62.2	79.7	75.3	49.9	59.7
1923	114.4	100.9	62.0	111.4	88.7	114.2	88.9	135.0	75.6	114.9	99.7	116.7	72.0	78.3	128.5	87.6	77.0	77.5	89.8	87.0	49.0	59.0
1924	109.5	88.3	61.0	93.0	66.8	93.8	65.1	118.2	85.0	—	93.6	92.1	71.5	100.3	134.1	93.2	77.4	76.2	91.9	79.6	38.6	—
1925	108.2	92.8	73.3	121.7	73.3	115.4	84.6	123.8	87.9	114.9	103.2	125.4	86.0	128.3	121.7	90.4	77.5	68.8	95.3	105.6	69.0	78.8
Average Points of Best Shows	104.1	89.8	64.7	110.2	76.6	101.3	74.7	109.5	77.7	103.3	99.6	101.1	71.4	102.3	115.7	87.4	82.7	67.2	85.5	79.3	51.6	58.7
R.D.F.A. Class Standard	100	83	66	110	73	100	60	110	73	100	90	100	66	100	90	60	85	56	90	80	53	70

TABLE IV.—SHOWING THE HIGHEST POINTS GAINED EACH YEAR SINCE 1913.

Year.	Daily Short-horns. Pedfere.	Daily Short-horns. Ped. 3 & 5 yrs.	Daily Short-horns. Ped. Hefers.	Daily Short-horns. Non-Pedfere.	Daily Short-horns. Hefers.	Lincolnshire Red Short-horn Cows.	Lincolnshire Red Short-horn Hefers.	British Friesian Hefers.	British Friesian Cows.	South Devon Cows.	Devon Cows.	Red Poll Cows.	Red Poll Hefers.	Blue Allion Cows.	Ayrshire Cows.	Ayrshire Hefers.	Guernsey Cows.	Guernsey Hefers.	Jersey Cows.	Kerry Cows.	Kerry Hefers.	Dexter Cows.
1913	127.6	—	83.6	158.0	102.1	114.8	81.2	—	—	115.7	—	120.5	81.2	—	130.2	—	93.8	—	123.1	93.7	—	—
1914	144.8	—	98.1	136.9	97.6	105.5	77.2	103.6	—	133.8	—	144.9	98.1	—	—	—	99.7	—	112.2	—	—	—
1915	125.8	—	79.1	149.5	101.7	111.2	80.2	116.3	—	99.2	—	107.0	82.1	—	—	—	96.7	—	104.5	—	—	68.0
1919	136.4	97.1	69.0	117.8	118.8	133.6	85.1	117.1	70.7	—	111.3	135.9	96.2	—	—	—	118.8	82.4	99.4	101.3	—	66.6
1920	116.7	101.7	87.0	129.1	96.1	115.1	100.2	155.6	96.7	—	127.9	119.0	92.2	—	—	—	130.4	73.8	120.1	95.6	58.0	47.3
1921	131.9	130.6	81.0	168.8	87.5	157.1	96.8	173.8	89.5	143.6	132.5	117.3	81.2	—	116.8	—	124.1	83.7	100.4	107.9	63.2	89.0
1922	152.2	116.1	83.1	129.8	88.2	150.6	82.4	158.3	78.8	142.4	126.2	122.6	80.3	—	120.0	95.5	128.0	78.8	109.3	85.0	63.4	70.9
1923	167.1	121.9	90.0	166.1	116.5	137.6	109.0	154.7	78.4	139.2	125.3	142.7	94.6	87.7	150.3	111.8	107.7	102.7	119.9	114.8	60.3	79.0
1924	132.4	124.1	77.7	142.5	83.1	118.0	101.0	153.4	101.9	—	109.1	126.8	93.1	121.7	158.3	107.3	105.7	92.5	124.7	103.7	57.4	—
1925	132.9	123.4	101.8	145.9	94.6	149.9	108.0	162.3	99.3	145.7	135.5	146.4	107.4	145.2	165.2	115.5	106.6	86.9	120.1	1134.2	69.3	86.4

TABLE V.—QUANTITY AND QUALITY OF MILK. 1925 SHOW.

Class No.	BREED.	No. of Competitors.	Average Weight of Milk.		Total Weight of Milk.	Average Composition of Milk						Total Solids	
			Morn.	Even		Fat.		Solids— not Fat.		Morn.	Even.	Morn.	Even.
						%	%	%	%				
1	Dairy Shorthorn—Pedigree	12	27.5	22.7	50.2	3.68	4.47	9.17	9.01	12.85	13.48		
2	Ditto (over 3 and under 5 years)	10	23.6	20.4	44.0	3.41	4.37	9.29	9.09	12.70	13.46		
3	Ditto Heifers	13	18.6	15.4	34.0	3.75	4.05	9.34	9.28	13.09	13.33		
4	Dairy Shorthorn—Non-pedigree	6	30.0	24.8	54.8	3.86	4.42	9.36	9.19	13.22	13.61		
5	Ditto ditto Heifers	3	18.2	15.1	33.3	3.70	4.05	9.43	9.33	13.13	13.38		
6	Lincoln Red Shorthorn	11	29.8	25.1	54.9	3.40	4.35	9.13	8.99	12.53	13.34		
7	Ditto Heifers	5	21.5	18.5	40.0	3.72	4.93	9.09	8.89	12.81	13.82		
8	British Friesian	14	33.4	27.9	61.3	3.51	4.06	8.99	8.86	12.50	12.92		
9	Ditto (over 3 and under 5 years)	7	33.0	28.3	61.3	3.42	4.27	8.67	8.66	12.09	12.93		
10	Ditto Heifers	3	21.6	17.4	39.0	4.02	3.93	9.01	9.13	13.03	13.06		
11	South Devon (Herd Book Society)	2	23.7	19.6	43.3	5.30	7.01	9.50	9.16	14.80	16.17		
12	Ditto (Recorded Cattle Society)	6	23.5	19.0	42.5	4.83	4.77	9.16	9.09	13.99	13.86		
13	Devon	8	24.4	20.5	44.9	4.53	4.36	9.37	9.20	13.90	13.56		
14	Red Poll	6	29.8	26.1	55.9	3.96	4.77	9.59	8.83	13.55	13.60		
15	Ditto (over 3 and under 5 years)	4	23.0	18.7	41.7	5.05	4.67	9.25	8.96	14.30	13.63		
16	Ditto Heifers	5	21.2	17.4	38.6	4.03	4.75	9.34	8.90	13.37	13.65		
17	Blue Albion	5	31.4	25.9	57.3	3.98	4.81	9.20	8.72	13.18	13.53		
18	Welsh Black	2	23.3	20.3	43.6	5.53	4.78	8.84	8.84	14.37	13.62		
19	Ayrshire	16	31.2	25.4	56.6	3.66	4.93	8.87	8.76	12.53	13.69		
20	Ditto Heifers	15	22.1	18.5	40.6	4.13	4.94	8.98	8.98	13.11	14.12		
21	Guernsey	8	16.8	13.1	29.9	5.09	5.97	8.92	9.05	14.01	15.02		
22	Ditto (over 3 and under 5 years)	9	17.9	14.0	31.9	4.34	5.59	8.98	8.79	13.32	14.38		
23	Ditto Heifers	4	18.1	14.7	32.8	4.14	5.00	8.68	8.75	12.82	13.75		
24	Jersey	12	20.5	17.4	37.9	4.95	5.56	8.82	9.01	13.77	14.57		
25	Ditto (over 3 and under 5 years)	11	19.6	16.3	35.9	5.01	5.57	9.22	8.98	14.23	14.55		
26	Ditto Heifers	10	14.5	12.4	26.9	4.70	6.00	9.55	9.33	14.25	15.33		
27	Kerry	7	25.1	21.5	46.6	3.80	5.02	9.17	9.04	12.97	14.15		
28	Ditto Heifers	3	15.6	13.6	29.2	3.67	4.79	9.57	9.36	13.24	14.15		
29	Dexter	3	19.5	16.0	35.5	3.77	4.00	8.75	8.83	12.52	12.83		
30	Ditto Heifers	1	11.2	10.7	21.9	4.92	5.52	10.24	10.20	15.16	15.72		

TABLE VI.—NUMBER OF ANIMALS YIELDING MILK DEFICIENT IN FAT AND OTHER SOLIDS.

Breed and Class.		Less than 3 per cent. of Fat.										Less than 8.5 per cent. of other Solids.									
		1914	1915	1919	1920	1921	1922	1923	1924	1925	1914	1915	1919	1920	1921	1922	1923	1924	1925		
Dairy Shorthorn—Pedigree	...	2	6	5	2	4	6	2	1	2	0	0	1	2	1	0	2	1	0		
Ditto (over 3 and under 5 years)	...	—	—	2	3	5	2	1	4	2	—	—	0	1	1	0	2	1	0		
Ditto Heifers	...	3	1	1	2	2	0	0	2	2	0	0	0	0	1	0	0	0	0		
Dairy Shorthorn—Non-Pedigree	...	4	4	2	2	1	1	0	3	0	2	0	1	0	0	1	1	2	0		
Ditto Heifers	...	2	1	1	0	2	0	1	1	1	0	0	0	0	0	0	1	0	0		
Lincoln Red Shorthorn	...	2	5	2	4	3	3	1	5	2	0	0	0	0	0	0	2	0	0		
Ditto Heifers	...	2	3	0	1	0	2	1	4	0	0	0	0	0	0	0	1	1	3		
British Friesian	...	4	5	2	12	0	6	2	6	4	0	—	—	2	3	1	0	0	0		
Ditto (over 3 and under 5 years)	...	—	—	1	—	0	4	1	1	3	0	0	—	—	—	—	—	—	—		
Ditto Heifers	...	2	1	—	—	0	0	0	—	—	0	0	—	—	0	0	—	—	0		
South Devon (Herd Book Society)	...	—	—	—	—	0	0	0	0	0	—	—	—	—	—	—	—	—	0		
Ditto (Recorded Cattle Society)	...	—	—	—	—	0	0	0	0	0	—	—	—	—	—	—	—	—	0		
Devon	...	—	—	0	0	0	0	0	0	0	—	—	—	—	0	0	0	0	0		
Red Poll	...	0	0	5	1	0	4	0	3	0	0	0	2	0	4	1	0	1	0		
Ditto (over 3 and under 5 years)	...	—	—	—	2	0	6	2	2	0	—	—	0	0	1	0	1	1	1		
Ditto Heifers	...	1	3	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1		
Blue Albion	...	—	—	—	—	—	—	0	0	0	—	—	—	—	—	0	0	0	0		
Welsh Black	...	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	0		
Ayrshire	...	—	—	—	—	0	2	0	0	2	—	—	—	1	0	0	0	0	2		
Ditto Heifers	...	—	—	—	—	—	2	0	0	0	—	—	—	0	0	0	0	0	1		
Guernsey	...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
Ditto (over 3 and under 5 years)	...	—	—	0	—	0	0	0	0	—	—	—	—	0	0	0	0	2	2		
Ditto Heifers	...	—	—	0	0	0	0	1	0	0	—	—	—	0	0	0	0	1	1		
Jersey	...	0	0	0	0	1	0	0	0	0	0	0	3	0	0	1	0	0	2		
Ditto (over 3 and under 5 years)	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0		
Ditto Heifers	...	—	—	—	—	—	0	0	0	0	—	—	—	—	—	0	0	0	0		
Kerry	...	—	—	1	1	0	2	1	1	1	—	—	1	0	1	0	0	1	0		
Ditto Heifers	...	—	—	0	0	0	1	1	1	1	—	—	0	0	0	0	0	1	0		
Dexter	...	—	—	0	0	0	0	0	—	—	0	1	1	0	0	0	—	0	0		
Ditto Heifers	...	—	—	—	—	—	—	0	0	0	—	—	—	—	—	—	0	0	0		
Any Breed, Milked 3 times daily	...	—	—	—	—	—	—	2	1	5	—	—	—	—	—	2	1	1	0		
Total	...	22	29	23	34	18	56	21	36	25	2	0	7	23	18	12	12	17	17		
Number of Animals Tested	...	105	85	145	183	220	253	219	239	226	105	85	145	183	220	253	219	239	226		

MILKING TRIALS, 1925.

CLASS 1.—DAIRY SHORTHORN COWS (ENTERED IN OR ELIGIBLE FOR COATES' HERD BOOK, OR ITS PEDIGREE SENT FOR SUCH ENTRY PREVIOUS TO THE SHOW. BORN ON OR PREVIOUS TO 1ST AUGUST, 1920).

Number ...	...	...	...	2	3	4	5
Name ...	...	...	...	Evening Princess	Rickenscote Foggarthorpe	Barrington Empress 3rd.	Wild Eyes Lady.
Born ...	...	...	...	May 17, 1919. 1,274	Jan. 25, 1920. 1,368	July 15, 1918. 1,221	Nov. 13, 1918. 1,299
Live weight, in lbs.	...	...	...	Sept. 27. 22	May 28. 144	Sept. 15. 34	Sept. 27. 22
Last Calved ...	...	...	...	...	...	...	...
Days since Calving	...	...	...	...	...	...	...
Weight of Milks, 1st day	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	22-9 19-1	28-1 24-5	22-4 19-0	27-0 25-0
Total ...	...	...	...	23-3 18-5	30-1 24-5	26-3 19-9	26-1 21-0
Average ...	...	...	...	46-2 37-6	58-2 49-0	48-7 38-9	53-1 46-0
Percentage	...	...	...	23-1 18-8	29-1 24-5	24-35 19-45	26-55 23-0
Composition of the Milk.	...	...	...	3-59 4-30	4-16 5-29	4-44 3-26	2-79 3-77
Actual weight of Fat, in lbs.	...	...	...	9-49 8-94	9-12 8-95	9-04 9-24	8-89 8-97
Calculation of Points multiply by 20...	...	...	...	13-08 13-24	13-28 14-24	13-48 12-50	11-68 12-74
Actual weight of Solids other than Fat, in lbs.	...	...	...	0-83 0-81	1-21 1-265	1-08 0-63	0-74 0-865
Calculation of Points multiply by 4	...	...	...	16-60 16-20	24-20 25-30	21-60 12-60	14-80 17-30
Points	...	...	...	2-19 1-68	2-66 2-18	2-19 1-8	2-34 2-07
For time since Calving	...	...	...	8-76 6-72	10-64 8-72	8-76 7-2	9-36 8-28
For weight of Milk (lbs.)	...	...	...	41-9	10-4	43-8	49-5
For weight of Fat (lbs. × 20)	...	...	...	32-8	53-6	34-2	32-1
For weight of Solids other than Fat (lbs. × 4)	...	...	...	15-5	19-4	16-0	17-6
Total ...	...	...	...	90-2	132-9	94-0	99-2
Deductions	...	...	...	—	—	—	10-0
Points gained...	...	...	...	90-2	132-9	94-0	89-2
Remarks and Awards	...	...	...	1st Prize, Desborough Cup.	...	...	...

CLASS I.—DAIRY SHORTHORN COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1920)—Continued.

Number ... Name ...	...	...	...	...	6 Peneoyd Blanche 2nd.	8 Rackscote Rosamund	10 Kingsley the Countess July 2nd	11 Hutton Daffodil 2nd
Born ...	...	...	...	...	April 15, 1920.	Jan. 25, 1919	June 16, 1918.	Aug. 19, 1917.
Live weight, in lbs.	...	...	...	...	1,186	1,748	1,230	1,381
Last Calved ...	...	...	...	...	Sept. 8.	Sept. 8.	Oct. 6.	Oct. 4.
Days since Calving	...	...	...	...	41	41	13	15
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	31.6 26.8	22.9 18.6	24.7 23.4	26.9 21.1
Total	...	...	...	...	32.5 25.7	22.8 18.3	28.5 23.3	27.7 22.1
Average ...	...	...	...	...	64.1 52.5	45.7 36.9	53.2 46.7	54.6 43.2
Percentage of Fat ...	...	...	...	...	32.05 26.25	22.85 18.45	26.6 23.35	27.3 21.6
Composition of Solids other than Fat the Milk.	...	...	...	...	3.59 4.69	3.89 4.38	4.17 6.08	4.67 4.62
Actual weight of Fat, in lbs.	...	...	...	...	9.03 9.15	9.37 9.32	9.45 9.12	9.43 9.08
Calculation of Points multiply by 20...	...	...	...	...	12.62 13.84	13.26 13.70	13.62 15.80	14.10 13.70
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	1.15 1.23	0.89 0.81	1.15 1.56	1.28 0.99
Calculation of Points multiply by 4 ...	...	...	...	...	23.00 24.60	17.8 16.20	23.00 31.20	25.60 19.80
For time since Calving	...	...	...	...	2.9 2.4	2.14 1.71	2.52 2.13	2.56 1.95
For weight of Milk (lbs.)	...	...	...	...	11.6 9.6	8.56 6.84	10.08 8.52	10.24 7.80
For weight of Fat (lbs. × 20)	...	...	...	...	0.1	0.1	—	—
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	58.3 47.6	41.3 34.0	49.9 54.2	48.9 45.4
Total ...	...	...	...	...	21.2	15.4	18.6	18.0
Deductions ...	...	...	...	...	127.2	90.8	122.7	112.3
Points gained...	...	...	...	...	127.2	90.8	122.7	112.3
Remarks and Awards ...	...	...	...	...	2nd Prize. Reserve for Desborough Cup.	Reserve and Highly Commended.	Reserve and Highly Commended.	Highly Commended.

CLASS 1.—DAIRY SHORTHORN COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1920)—Continued.

Number ... Name ...	...	...	...	...	14 Blossom's Rose.	15 Ridge Rosedale.	23 Penelope's Bonny Lady	26 Lady Doreen.
Born ...	...	...	...	...	March 17, 1916.	Nov. 10, 1918.	Oct. 7, 1918	March 19, 1917.
Live weight, in lbs.	...	...	...	...	1,336	1,412	1,186	1,247
Last Calved ...	...	...	...	...	Aug. 24.	Oct. 2.	Oct. 5.	Sept. 17.
Days since Calving	...	...	...	...	56	17	14	32
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	31.6 25.9	28.3 26.0	24.3 21.2	32.5 26.2
Total	...	...	...	...	30.7 24.8	29.1 24.5	24.8 19.8	33.9 25.8
Average	...	...	...	...	62.3 50.7	57.4 50.5	49.1 41.0	66.4 52.0
Percentage { Fat ...	...	...	...	...	31.15 25.35	28.7 25.25	24.55 20.5	33.2 26.0
Composition of { Solids other than Fat	...	...	...	...	2.83 3.70	3.12 4.65	3.40 4.21	3.50 4.13
the Milk. { Total Solids	...	...	...	...	8.99 8.66	9.24 8.89	9.24 8.95	8.70 8.81
Actual weight of Fat, in lbs.	...	...	...	...	11.82 12.36	12.36 13.54	12.64 13.16	12.26 12.94
Calculation of Points multiply by 20...	...	...	...	...	0.88 0.94	0.895 1.18	0.84 0.86	1.16 1.07
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	17.60 18.80	17.9 23.60	16.80 17.20	23.20 21.40
Calculation of Points multiply by 4 ...	...	...	...	...	2.80 2.2	2.65 2.25	2.27 1.83	2.91 2.3
Points { For time since Calving	...	...	...	...	11.20 8.8	10.60 9.00	9.08 7.32	11.64 9.2
{ For weight of Milk (lbs.)	...	...	...	...	1.6	53.9	45.0	59.2
{ For weight of Fat (lbs. × 20)	...	...	...	...	56.5	41.5	34.0	44.6
{ For weight of Solids other than Fat	...	...	...	...	36.4	19.6	16.4	20.8
{ (lbs. × 4) ...	...	...	...	...	20.0	115.0	95.4	124.6
Total ...	...	...	...	...	114.5	115.0	95.4	124.6
Deductions ...	...	...	...	...	10.0	—	—	—
Points gained...	...	...	...	...	104.5	115.0	95.4	124.6
Remarks and Awards ...	...	...	...	...	Highly Commended.	Highly Commended.	—	3rd Prize.

CLASS 2.—DAIRY SHORTHORN COWS (ENTERED IN OR ELIGIBLE FOR COATES' HERD BOOK, OR ITS PEDIGREE SENT FOR SUCH ENTRY PREVIOUS TO THE SHOW. BORN AFTER 1ST AUGUST, 1920, AND PREVIOUS TO 1ST AUGUST, 1922).

Number	...	...	...	...	...	27	28	30	31
Name	...	...	...	...	...	Southborough Ringlet	Spotless 45th.	Chaffield Valentine.	Southridge Princess
Born	...	...	...	...	...	Dec. 1, 1921. 1,280	Oct. 28, 1921. 1,376	Oct. 1, 1920. 1,222	Dec. 28, 1920. 1,302
Live weight, in lbs.	...	...	...	...	...	Sept. 25. 24	Aug. 21. 59	Aug. 24. 56	Sept. 11. 38
Last Calved	...	...	...	...	...	Morn	Morn	Morn	Morn
Days since Calving	...	...	...	...	...	Even	Even	Even	Even
Weight of Milk, 1st day	...	...	...	...	...	26-5	13-4	27-0	21-9
Weight of Milk, 2nd day	...	...	...	...	...	27-8	14-0	23-4	20-4
Total	...	...	...	...	...	28-4	12-3	28-4	23-0
Average	...	...	...	...	...	54-9	26-3	55-4	44-9
Percentage	...	...	...	...	...	52-7	16-05	49-9	40-6
Composition of the Milk.	...	...	...	...	...	27-45	13-15	27-7	22-45
Actual weight of Fat, in lbs.	...	...	...	...	...	26-35	5-67	4-46	2-43
Calculation of Points multiply by 20...	...	...	...	...	...	4-61	3-91	3-08	2-43
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	9-67	9-65	9-48	8-95
Calculation of Points multiply by 4 ...	...	...	...	...	...	9-37	10-05	9-20	8-88
Points	...	...	...	...	...	12-46	13-56	13-66	11-38
For time since Calving	...	...	...	...	...	0-76	0-63	0-855	0-545
For weight of Milk (lbs.)	...	...	...	...	...	1-22	0-74	1-11	0-78
For weight of Fat (lbs. × 20)	...	...	...	...	...	15-20	14-80	17-10	10-90
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	...	2-47	1-19	2-63	2-02
Total	...	...	...	...	...	10-60	6-20	10-52	8-08
Deductions	...	...	...	...	...	53-8	1-9	1-6	42-7
Points gained...	...	...	...	...	...	39-6	29-2	52-6	26-5
Remarks and Awards	...	...	...	...	...	20-5	11-0	19-7	15-2
	...	...	...	...	...	113-9	69-5	113-2	84-4
	...	...	...	...	...	10-0	—	—	10-0
	...	...	...	...	...	103-9	69-5	113-2	74-4
	...	...	...	...	...	Reserve.	—	—	—
	...	...	...	...	...			2nd Prize, Short-horn Soc.'s Prize, Eq. with No. 35.	

CLASS 2.—DAIRY SHOETHORN COWS (BORN AFTER 1ST AUGUST, 1920, AND PREVIOUS TO 1ST AUGUST, 1922)—Continued.

Number ... Name ...	...	...	...	...	33 Bright Rose.	35 Greatest Blossom.	41 Thorn's Lady Wimbora.	43 Gav Fern
Born ...	...	...	...	...	May 22, 1921. 1,442	Dec. 30, 1921 1,246	Nov. 25, 1920. 1,428	Jun. 12, 19. 2. 1,154
Live weight, in lbs.	...	...	...	...	Sept. 14. 35	Oct. 4. 15	Sept. 19. 30	Aug. 24. 56
Last Calved ...	...	...	...	...	Morn	Morn	Morn	Morn
Days since Calving	...	...	...	...	Even	Even	Even	Even
Weight of Milk, 1st day	...	...	...	...	23-7	20-9	25-1	19-5
Weight of Milk, 2nd day	...	...	...	...	25 0	20-7	26-9	18 8
Total	...	...	...	...	48-7	41-6	52-0	38-3
Average ...	...	...	...	...	24-35	20-8	26-0	19-15
Percentage { Fat ...	...	...	...	...	3-08	4-18	4-11	3-37
Composition of { Solids other than Fat	...	...	...	...	9-31	9-08	8-83	9-31
the Milk. { Total Solids	...	...	...	...	12-42	13 26	12-94	12-68
Actual weight of Fat, in lbs. ...	...	...	...	...	0-75	0 87	1-07	0-645
Calculation of Points multiply by 20...	...	...	...	...	15 0	17-40	21-40	12-9
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	2-27	1-88	2-29	1-52
Calculation of Points multiply by 4 ...	...	...	...	...	9-08	7-52	9-16	7-12
Points { For time since Calving For weight of Milk (lbs.) For weight of Fat (lbs. × 20) For weight of Solids other than Fat (lbs. × 4) ...	...	...	...	...	45-1	55-8	46-4	35-4
	...	...	...	...	32-4	46-1	38-2	27-5
	...	...	...	...	16-6	21-5	16-3	13-2
	...	...	...	...	94-1	123-4	100-9	78-2
Total ...	...	...	...	...	94-1	123-4	100-9	78-2
Deductions ...	...	...	...	...	94-1	123-4	100-9	78-2
Points gained...	...	...	...	...	94-1	123-4	100-9	78-2
Remarks and Awards ...	...	...	...	...	Highly Commended.	1st Prize, Short- horn Soc is Prize, Eq. with No. 30.	Highly Commended.	78-2

CLASS 3.—DAIRY SHORTHORN HEIFERS (ENTERED IN OR ELIGIBLE FOR 'GOATES' HERD BOOK.
BORN ON OR AFTER 1ST AUGUST, 1922).

Number ... Name ...	...	...	...	...	51 Backbone & Cressida	54 Barnington Lady	55 Ashle Wild Du-hess	56 Penceed Dairy Girl
Born ...	...	...	...	...	Sept. 17, 1922.	April 4, 1923.	March 13, 1923.	Sept 15, 1922.
Live weight, in lbs.	...	...	...	...	1,185	962	1,218	980
Last Calved ..	...	...	...	...	Oct. 6.	Aug. 20	Sept. 14.	Aug. 18.
Days since Calving ..	...	...	...	...	13	60	35	62
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	17-3 14-5	18-6 13-7	21-1 19-2	21-4 16-8
Total	...	...	...	...	17-1 14-8	19-0 14-5	20-9 17-6	20-7 15-5
Average ...	...	...	...	...	34-4 20-3	37-6 28-2	42-0 36-8	42-1 32-3
Percentage { Fat ...	...	...	...	...	17-2 14-65	18-8 14-1	21-0 18-4	21-05 16-15
Composition of { Solids other than Fat	...	...	...	...	4-58 4-28	4-48 4-01	3-68 4-90	3-42 3-06
the Milk. { Total Solids	...	...	...	...	9-66 9-52	9-48 9-55	9-58 9-34	8-74 8-84
Actual weight of Fat, in lbs. ...	...	...	...	...	14-24 13-80	13-96 13-56	13-16 14-24	12-16 12-50
Calculation of Points multiply by 20...	...	...	...	...	0-79 0-63	0-845 0-56	0-755 0-9	0-72 0-59
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	15-80 12-6	16-9 11-2	15-10 18-0	14-40 11-8
Calculation of Points multiply by 4 ...	...	...	...	...	1-66 1-30	1-79 1-34	2-02 1-72	1-84 1-43
{ For time since Calving	...	...	...	...	6-64 5-56	7-16 5-36	8-08 6-88	7-36 5-72
{ For weight of Milk (lbs.)	...	...	...	...	—	2-0	—	2-2
{ For weight of Fat (lbs. × 20)	...	...	...	...	51-8	32-9	39-4	37-2
{ For weight of Solids other than Fat	...	...	...	...	28-4	28-1	33-1	26-2
(lbs. × 4) ...	...	...	...	...	12-2	12-5	15-0	13-1
Total ...	...	...	...	...	72-4	75-5	87-5	78-7
Deductions ...	...	...	...	...	—	—	—	—
Points gained...	...	...	...	...	72-4	75-5	87-5	78-7
Remarks and Awards ...	...	...	...	...	Highly Commended.	Highly Commended.	3rd Prize, Shorthorn Society's Prize.	Highly Commended.

CLASS 3 — DAIRY SHORTHORN HEIFERS (BOEN ON OR AFTER 1ST AUGUST, 1922)—Continued.

Number ...	...	...	...	...	...	57 Knechtow Ruhw. 4th	60 Plus Power Hopeful	61 Alcalium Final t	62 Alcalium Washout
Name ...	...	...	...	...	...	...	...	...	...
Born ...	...	...	...	...	...	Oct. 9, 1922.	May 10, 1923.	Dec. 12, 1922.	Nov. 5, 1922.
Live weight, in lbs.	...	...	...	...	...	1,075	1,271	1,206	1,236
Last Calved ...	...	...	...	...	...	June 24.	Sept. 28.	Sept. 23.	Sept. 9.
Days since Calving	...	...	...	...	...	117	21	26	40
Weight of Milk, 1st day	...	...	...	...	...	Morn	Morn	Morn	Morn
Weight of Milk, 2nd day	...	...	...	...	...	Even	Even	Even	Even
Total	...	...	...	...	...	14.7 12.7	14.6 11.9	10.3 10.0	13.1 12.7
Average	...	...	...	...	...	18.4 14.7	15.0 13.7	11.6 10.3	14.2 14.1
Percentage of Fat ...	...	...	...	...	...	33.1 27.4	29.6 25.6	21.9 20.3	27.3 26.8
Composition of Solids other than Fat the Milk.	...	...	...	...	...	16.55 13.7	14.8 12.8	10.95 10.15	13.65 13.4
Actual weight of Fat, in lbs.	...	...	...	...	...	3.52 3.30	4.19 3.67	4.58 5.26	3.47 3.86
Calculation of Points multiply by 20...	...	...	...	...	...	9.02 8.74	9.53 9.45	9.34 9.24	9.35 9.26
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	12.54 12.04	13.72 13.12	13.92 14.50	12.82 13.12
Calculation of Points multiply by 4 ...	...	...	...	...	...	0.58 0.45	0.62 0.47	0.5 0.54	0.475 0.52
Points { For time since Calving	...	...	...	...	...	11.60 9.0	12.40 9.4	10.0 10.8	9.50 10.4
{ For weight of Milk (lbs.)	...	...	...	...	...	1.49 1.2	1.41 1.21	1.02 0.94	1.28 1.24
{ For weight of Fat (lbs. × 20)	...	...	...	...	...	5.96 4.8	5.64 4.84	4.08 3.76	5.12 4.96
{ For weight of Solids other than Fat (lbs. × 4) ...	...	...	...	...	...	7.7	—	—	—
Total ...	...	...	...	...	...	30.2	27.6	21.1	27.0
Deductions ...	...	...	...	...	...	20.6	21.8	20.8	19.9
Points gained...	...	...	...	...	...	10.8	10.5	7.8	10.1
Remarks and Awards ...	...	...	...	...	...	69.3	59.9	49.7	57.0
...	...	...	...	...	...	Highly Com-	59.9	49.7	57.0
...	...	...	...	...	...	mended, Short-	—	—	—
...	...	...	...	...	...	horn Soc. s Prize	—	—	—

CLASS 3.—DAIRY SHORTHORN HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1922)—Continued.

Number ...	...	...	...	...	65	67	68	71
Name ...	...	...	...	...	Greatfow Princess.	Lady Clovelly	Lady Doreen 9th.	Loughills Innar.
Born ...	...	...	...	...	May 21, 1923.	May 18, 1923.	Oct. 22, 1922.	Sept. 26, 1922.
Live weight, in lbs.	...	...	...	...	1,151	1,095	1,328	1,182
Last Calved ...	...	...	...	...	Sept. 17.	June 18.	April 25.	Aug. 16.
Days since Calving ...	...	...	...	...	32	123	177	64
Weight of Milk, 1st day	...	...	...	...	Morn	Morn	Morn	Morn
Weight of Milk, 2nd day	...	...	...	...	Even	Even	Even	Even
Total ...	...	...	...	...	24.4 22.5	14.6 11.0	19.0 15.2	23.4 17.0
Average ...	...	...	...	...	26.9 20.8	14.7 11.8	19.8 15.1	23.9 19.0
Percentage { Fat ...	...	...	...	...	51.3 43.3	29.3 23.7	38.8 30.3	47.3 36.0
Composition of { Solids other than Fat	...	...	...	...	25.65 21.65	14.65 11.85	19.4 15.15	23.65 18.0
the Milk. { Total Solids	...	...	...	...	2.47 4.53	3.60 3.90	4.23 4.00	2.31 2.93
Actual weight of Fat, in lbs. ...	...	...	...	...	9.45 8.99	9.38 9.16	9.09 9.32	9.45 9.59
Calculation of Points multiply by 20...	...	...	...	...	11.92 13.52	12.98 13.06	13.32 13.32	11.76 12.52
Actual weight of Solids other than Fat, in lbs	...	...	...	...	0.635 0.98	0.53 0.46	0.82 0.61	0.55 0.53
Calculation of Points multiply by 4 ...	...	...	...	...	12.70 19.6	10.60 9.2	16.40 12.2	11.0 10.6
Points { For time since Calving	...	...	...	...	2.44 1.94	1.37 1.08	1.76 1.41	2.24 1.72
For weight of Milk (lbs.)	...	...	...	...	9.76 7.76	5.48 4.32	7.04 5.64	8.96 6.88
For weight of Fat (lbs. × 20)	...	...	...	...	—	8.3	12.0	2.4
For weight of Solids other than Fat	...	...	...	...	47.3	26.5	34.5	41.6
(lbs. × 4) ...	...	...	...	...	32.3	19.8	28.6	21.6
Total ...	...	...	...	...	17.5	9.8	12.7	15.8
Deductions ...	...	...	...	...	97.1	64.4	87.8	81.4
Points gained...	...	...	...	...	10.0	—	—	20.00
Remarks and Awards ...	...	...	...	...	87.1	61.4	87.8	61.4
	...	...	...	...	Reserve and Highly Commended.		2nd Prize.	
	...	...	...	...			Res. with No. 72	
	...	...	...	...			Shorthorn Soc.'s P.	

CLASS 3.—DAIRY SHORTHORN HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1923)—Continued.

Number ...	...	...	...	...	72
Name ..	...	...	...	...	Leachhills Dastrington Rd
Born ...	...	...	...	...	Jan. 30, 1923.
Live weight, in lbs.	...	...	...	...	1,114
Last Calved ...	...	...	...	...	Sept. 15.
Days since Calving	...	...	...	...	34
Weight of Milk, 1st day	...	...	...	...	Morn Even
Weight of Milk, 2nd day	...	...	...	...	26.5 19.8
Total	...	...	...	...	24.1 20.4
Average ..	...	...	...	...	50.6 40.2
Percentage { Fat ...	...	...	...	...	25.3 20.1
Composition of { Solids other than Fat	...	...	...	...	4.28 4.35
the Milk. { Total Solids	...	...	...	...	9.32 9.61
Actual weight of Fat, in lbs.	...	...	...	...	13.60 13.96
Calculation of Points multiply by 20...	...	...	...	...	1.09 0.87
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	21.80 17.4
Calculation of Points multiply by 4 ...	...	...	...	...	2.37 1.92
Points { For time since Calving	...	...	...	...	9.48 7.68
{ For weight of Milk (lbs.)	...	...	...	...	—
{ For weight of Fat (lbs. × 20)	...	...	...	...	45.4
{ For weight of Solids other than Fat	...	...	...	...	39.2
(lbs. × 4) ...	...	...	...	...	17.2
Total ...	...	...	...	...	101.8
Deductions	...	...	...	...	—
Points gained...	...	...	...	...	101.8
Remarks and Awards ...	...	...	...	...	1st Prize, Reserve
	...	...	...	...	Shorthorn Soc.'s
	...	...	...	...	Prize with No. 68.

CLASS 4.—DAIRY SHORTHORN COWS (NOT ELIGIBLE FOR CLASSES 1 OR 2).

Number ... Name ...	...	...	...	...	75 Stokeleycross Beauty	77 Spot.	80 Ruth 3rd.	81 Rosaline.
Born ...	...	...	...	...	March 2, 1922.	1915	July 29, 1916.	...
Live weight, in lbs.	...	...	...	...	1,252	1,592	1,380	1,247
Last Calved ...	...	...	...	...	Oct. 1.	Sept. 23.	Sept. 26.	July 24.
Days since Calving	...	...	...	...	18	26	23	87
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	33-4 26-5	34-8 28-0	29-7 24-9	29-6 23-5
Total	...	...	...	...	33-6 27-6	33-3 30-6	35-0 29-5	28-8 23-1
Average ...	...	...	...	...	67-0 54-1	68-1 58-6	64-7 54-4	58-4 46-6
Percentage { Fat ...	...	...	...	...	33-5 27-05	34-05 29-3	32-36 27-2	29-2 23-3
Composition of { Solids other than Fat	...	...	...	...	3-84 4-07	3-98 5-60	4-04 4-07	3-77 3-71
the Milk. { Total Solids	...	...	...	...	9-70 9-63	9-04 8-74	9-32 8-85	9-27 9-23
Actual weight of Fat, in lbs.	...	...	...	...	13-54 13-70	13-02 14-34	13-36 12-92	13-04 12-94
Calculation of Points multiply by 20...	...	...	...	...	1-29 1-10	1-36 1-64	1-3 1-11	1-10 0-86
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	25-80 22-0	27-20 32-8	26-0 22-2	22-00 17-2
Calculation of Points multiply by 4 ...	...	...	...	...	3-25 2-61	3-09 2-57	3-0 2-4	2-72 2-15
Points { For time since Calving	...	...	...	...	13-00 10-44	12-36 10-28	12-0 9-6	10-88 8-6
{ For weight of Milk (lbs.)	...	...	...	...	60-5	63-3	59-5	4-7
{ For weight of Fat (lbs. × 20)	...	...	...	...	47-8	60-0	48-2	52-5
{ For weight of Solids other than Fat	...	...	...	...	23-4	22-6	21-6	39-2
{ (lbs. × 4) ...	...	...	...	...	131-7	145-9	129-3	19-5
Total ...	...	...	...	...	—	—	—	115-9
Deductions ...	...	...	...	...	131-7	145-9	129-3	—
Points gained...	...	...	...	...	2nd Prize, Res. for 1st Prize, Morrish	—	—	—
Remarks and Awards ...	...	...	...	...	Dairy Shorthorn Trophy, Shorthorn	—	—	—
	...	...	...	...	Association's Prize Association's Prize	—	—	—
	...	...	...	...	3rd Prize.	—	—	—
	...	...	...	...	Highly Commended.	—	—	—

CLASS 4.—DAIRY SHORTHORN COWS (NOT ELIGIBLE FOR CLASSES 1 OR 2)—Continued.

Number ... Name ...	...	...	...	...	...	84 Fanny.	90 Martha.
Born ...	...	...	...	...	...	1921. 1,256 Sept. 28. 21	— 1,414 Sept. 4. 45
Live weight, in lbs. ...	...	...	...	...	...	Morn	Morn
Last Calved ...	...	...	...	...	...	Even	Even
Days since Calving ...	...	...	...	...	...	20-6 18-9	32-1 22-5
Weight of Milk, 1st day ...	...	...	...	...	...	20-7 19-2	29-1 23-5
Weight of Milk, 2nd day ...	...	...	...	...	...	41-3 38-1	61-2 46-0
Total ...	...	...	...	...	...	20-65 19-05	30-6 23-0
Average ...	...	...	...	...	...	3-19 3-88	4-34 5-19
Percentage of Fat ...	...	...	...	...	...	9-67 9-64	9-20 9-07
Composition of Solids other than Fat ...	...	...	...	...	...	12-86 13-52	13-54 14-26
Total Solids ...	...	...	...	...	...	0-66 0-74	1-33 1-19
Actual weight of Fat, in lbs. ...	...	...	...	...	...	13-20 14-8	26-60 23-8
Calculation of Points multiply by 20...	...	...	...	...	...	2-00 1-84	2-82 2-08
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	8-00 7-36	11-28 8-32
Calculation of Points multiply by 4 ...	...	...	...	...	...	—	0-5
For time since Calving ...	...	...	...	...	...	39-7	53-6
For weight of Milk (lbs.) ...	...	...	...	...	...	28-0	50-4
For weight of Fat (lbs. × 20) ...	...	...	...	...	...	15-4	19-6
For weight of Solids other than Fat (lbs. × 4) ...	...	...	...	...	...	83-1	124-1
Total ...	...	...	...	...	...	—	—
Deductions ...	...	...	...	...	...	83-1	124-1
Points gained...	...	...	...	...	...	—	—
Remarks and Awards ...	...	...	...	...	...	Reserve and Highly Commended.	Reserve and Highly Commended.

CLASS 5.—DAIRY SHORTHORN HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1922 NOT ELIGIBLE FOR CLASS 3).

Number ... Name ...	...	...	...	...	94 Cowship 3rd	96 Waterbrook Ruby.	103 Fath.
Born ...	...	...	...	...	Sept. 18, 1922.	—	Jan. 30, 1923.
Live weight, in lbs.	...	...	...	...	1,268	1,098	1,036
Last Calved ...	...	...	...	...	Sept. 30.	Sept. 25.	Aug. 1.
Days since Calving ...	...	...	...	...	19	24	79
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	12.4 11.8	23.8 18.0	17.7 15.0
Total	...	...	...	...	13.0 10.8	23.2 20.5	19.1 14.9
Average ...	...	...	...	...	25.4 22.6	47.0 38.5	36.8 29.9
Percentage { Fat ...	...	...	...	...	12.7 11.3	23.5 19.25	18.4 14.95
Composition of { Solids other than Fat	...	...	...	...	3.36 3.79	4.10 4.49	3.66 3.86
the Milk. { Total Solids	...	...	...	...	9.66 9.69	9.16 8.93	9.48 9.36
Actual weight of Fat, in lbs. ...	...	...	...	...	13.02 13.48	13.26 13.42	13.14 13.22
Calculation of Points multiply by 20...	...	...	...	...	0.425 0.43	0.96 0.86	0.67 0.58
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	8.500 8.6	19.20 17.2	13.40 11.6
Calculation of Points multiply by 4 ...	...	...	...	...	1.23 1.09	2.15 1.72	1.74 1.4
{ For time since Calving	...	...	...	...	4.92 4.36	8.60 6.88	6.96 5.6
{ For weight of Milk (lbs.)	...	...	...	...	—	—	3.9
{ For weight of Fat (lbs. × 20)	...	...	...	...	24.0	42.7	33.3
{ For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	17.1	36.4	25.0
Total ...	...	...	...	...	9.3	15.5	12.6
Deductions ...	...	...	...	...	50.4	9.46	74.8
Points gained...	...	...	...	...	—	—	—
Remarks and Awards ...	...	...	...	...	50.4	94.6	74.8
	...	...	...	...	1st Prize.	2nd Prize.	

CLASS 6.—LINCOLNSHIRE RED SHORTHORN COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK OF THE LINCOLNSHIRE RED SHORTHORN ASSOCIATION).

Number ...	...	...	...	104 Burton Amy 7th.	106 Burton Ethel 8th.	107 Burton Henry 6th.	108 Scothern Mystic.
Name ...	...	...	...	...	...	...	...
Born ...	...	...	...	March 14, 1916. 1,449	Aug 22, 1920. 1,332	August, 1920. 1,229	May 26, 1918. 1,549
Live weight, in lbs.	...	...	...	Sept. 16. 33	Sept. 28. 21	Sept. 27. 22	Aug 3. 77
Last Calved ...	...	...	...	...	...	...	...
Days since Calving	...	...	...	...	...	...	...
Weight of Milk, 1st day	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	38-5 31-6	32-2 30-1	38-0 30-0	31-1 24-6
Total	...	...	...	38-9 33-1	27-7 22-8	36-2 31-7	27-8 25-6
Average	...	...	...	77-4 64-7	59-9 47-9	74-2 61-7	58-9 50-2
Percentage { Fat ...	...	...	...	38-7 32-35	29-95 23-95	37-1 30-85	29-45 25-1
Composition of { Solids other than Fat	...	...	...	3-44 4-19	3-42 6-03	3-57 4-36	3-00 3-97
the Milk. { Total Solids	...	...	...	8-90 8-75	9-10 8-77	9-07 8-96	9-11 9-11
Actual weight of Fat, in lbs.	...	...	...	12-34 12-94	12-52 14-80	12-64 13-32	12-11 13-08
Calculation of Points multiply by 20...	...	...	...	1-34 1-35	1-03 1-44	1-33 1-34	0-88 1-0
Actual weight of Solids other than Fat, in lbs.	...	...	...	26-80 27-0	20-60 28-8	26-60 26-8	17-60 20-0
Calculation of Points multiply by 4 ...	...	...	...	3-45 2-82	2-72 2-1	3-36 2-76	2-68 2-28
Points { For time since Calving	...	...	...	13-80 11-28	10-88 8-4	13-44 11-04	10-72 9-12
{ For weight of Milk (lbs.)	...	...	...	71-0	53-9	67-9	3-7
{ For weight of Fat (lbs. × 20)	...	...	...	53-8	49-4	53-4	54-5
{ For weight of Solids other than Fat	...	...	...	25-1	19-3	24-5	37-6
{ (lbs. × 4) ...	...	...	...	149-9	122-6	145-8	19-8
Total ...	...	...	...	—	—	—	115-6
Deductions ...	...	...	...	149-9	122-6	145-8	—
Points gained...	...	...	...	1st Prize.	Reserve and Highly Commended.	2nd Prize.	Highly Commended.
Remarks and Awards ...	...	...	...	...	...	...	...

CLASS 6.—LINCOLNSHIRE RED SHORTHORN COWS—Continued.

Number Name	109 Southern Merrymaid	110 Southern Betty 3rd	111 Langford Castle 5th.	113 Langford Norman 7th
Born	June 3, 1918.	May 5, 1919.	Sept. 23, 1920.	Sept. 29, 1921.
Live weight, in lbs.	1,559	1,479	1,319	1,084
Last Calved	July 26.	Sept. 26.	Sept. 29.	Sept. 7.
Days since Calving	86	23	20	42
Weight of Milk, 1st day	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	23-9 19-8	22-2 16-9	33-1 29-1	31-0 26-4
Total	23-2 20-8	23-1 19-0	33-4 27-0	30-3 24-1
Average	47-1 40-6	45-3 35-9	66-5 56-1	61-3 50-5
Percentage of Fat	23-55 20-3	22-65 17-95	33-25 28-05	30-65 25-25
Composition of Solids other than Fat	3-35 4-44	2-80 2-73	4-33 4-22	3-52 4-55
Total Solids	9-49 9-08	9-62 9-71	9-15 9-20	9-34 9-13
Actual weight of Fat, in lbs.	12-84 13-52	12-42 12-44	13-48 13-42	12-86 13-08
Calculation of Points multiply by 20	0-79 0-9	0-64 0-49	1-44 1-19	1-08 1-15
Actual weight of Solids other than Fat, in lbs.	15-80 18-0	12-80 9-8	28-80 23-8	21-60 23-0
Calculation of Points multiply by 4	2-24 1-84	2-18 1-74	3-05 2-58	2-87 2-31
For time since Calving	8-96 7-36	8-72 6-96	12-20 10-32	11-48 9-24
For weight of Milk (lbs.)	4-6	—	—	0-2
For weight of Fat (lbs. × 20)	43-8	40-6	61-3	55-9
For weight of Solids other than Fat	33-8	22-6	52-6	44-6
(lbs. × 4)	16-3	15-7	22-5	20-7
Total	98-5	78-9	136-4	121-4
Deductions	—	20-0	—	—
Points gained	98-5	58-9	136-4	121-4
Remarks and Awards			3rd Prize.	Highly Commended.

CLASS 6.—LINCOLNSHIRE RED SHORTEORN COWS—Continued.

Number	...	...	...	...	...	114	115	117
Name	...	...	...	...	...	Bendish Ada 3th.	Langford Queen 7th.	Flancille Beaumont 13th.
Born	...	...	...	...	...	Dec. 7, 1917.	Jan. 25, 1918.	Dec. 10, 1917.
Live weight, in lbs.	...	...	...	...	...	1,330	1,253	1,272
Last Calved	...	...	...	...	...	Aug. 26.	Sept. 18.	Sept. 10
Days since Calving	...	...	...	...	...	54	31	39
Weight of Milk, 1st day	...	...	...	...	...	Morn	Morn	Morn
Weight of Milk, 2nd day	...	...	...	...	...	Even	Even	Even
Total	...	...	...	...	...	32.3 26.5	27.5 25.9	22.3 20.8
Average	...	...	...	...	...	33.2 27.0	26.8 25.8	23.4 19.8
Percentage	...	...	...	...	...	65.5 53.5	54.3 51.7	45.7 40.6
Composition of	...	...	...	...	...	32.75 26.75	27.15 25.85	22.85 20.3
the Milk.	...	...	...	...	...	2.32 3.42	3.65 5.76	4.02 4.17
Actual weight of Fat, in lbs.	...	...	...	...	...	8.80 8.62	8.79 8.72	9.04 8.89
Calculation of Points multiply by 20...	...	...	...	...	...	11.12 12.04	12.44 14.48	13.06 13.06
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	0.76 0.92	0.99 1.48	0.92 0.85
Calculation of Points multiply by 4 ...	...	...	...	...	...	15.20 18.4	19.80 29.6	18.40 17.0
Points	...	...	...	...	...	2.88 2.31	2.40 2.25	2.06 1.8
For time since Calving	...	...	...	...	...	11.52 9.24	9.60 9.0	8.24 7.2
For weight of Milk (lbs.)	...	...	...	...	...	1.4	—	—
For weight of Fat (lbs. × 20)	...	...	...	...	...	59.5	53.0	43.1
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	...	33.6	49.4	35.4
Total	...	...	...	...	...	20.8	18.6	15.4
Deductions	...	...	...	...	...	115.3	121.0	93.9
Points gained	...	...	...	...	...	10.0	—	—
Remarks and Awards	...	...	...	...	...	105.3	121.0	93.9
	...	...	...	...	...	Highly Commended.	Highly Commended.	

CLASS 7.—LINCOLNSHIRE RED SHORTHORN HEIFERS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK OF THE LINCOLNSHIRE RED SHORTHORN ASSOCIATION. BORN ON OR AFTER 1ST AUGUST, 1922).

Number ... Name ...	120 Langford Cuvv 4th	122 Langford Tolly 18th	123 Burton Vic 10th.	124 Burton Royal Scotfield 12th
Born ...	Sept. 20, 1922. 1,148	Sept. 26, 1922. 1,066	Aug. 20, 1922. 1,347	Dec. 26, 1922. 1,226
Live weight, in lbs. ...	Sept. 26. 23	Oct. 2. 17	Sept. 23. 26	Sept. 30. 19
Last Calved ...	Morn Even	Morn Even	Morn Even	Morn Even
Days since Calving ...	18-6 15-7	24-8 22-3	17-4 16-0	26-0 20-3
Weight of Milk, 1st day ...	18-0 15-0	25-2 21-6	14-0 13-6	25-2 20-4
Weight of Milk, 2nd day ...	36-6 30-7	50-0 43-9	31-4 29-6	51-2 40-7
Total ...	18-3 15-35	25-0 21-95	15-7 14-8	25-6 20-35
Average ...	3-94 4-65	4-00 5-43	3-58 4-66	3-91 4-81
Percentage of Fat ...	9-08 9-17	9-46 8-93	9-28 9-04	8-45 8-25
Composition of Solids other than Fat ...	13-02 13-82	13-46 14-36	12-86 13-70	12-36 13-06
Total Solids ...	0-72 0-71	1-00 1-19	0-56 0-69	1-00 0-98
Actual weight of Fat, in lbs. ...	14-40 14-2	20-00 23-8	11-20 13-8	20-00 19-6
Calculation of Points multiply by 20 ...	1-66 1-40	2-365 1-96	1-46 1-34	2-16 1-68
Actual weight of Solids other than Fat, in lbs. ...	6-64 5-6	9-46 7-84	5-84 5-36	8-04 6-72
Calculation of Points multiply by 4 ...	For time since Calving ...	46-9	30-5	45-9
Points { For weight of Milk (lbs.) ...	33-6	43-8	25-0	39-6
For weight of Fat (lbs. × 20) ...	28-6			
For weight of Solids other than Fat (lbs. × 4) ...	12-2	17-3	11-2	15-4
Total ...	74-4	108-0	66-7	100-9
Deductions ...				20-0
Points gained ...	74-4	108-0	66-7	80-9
Remarks and Awards ...	Highly Commended.	1st Prize.	Highly Commended.	3rd Prize.

CLASS 7.—LINCOLNSHIRE RED SHORTHORN HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1922)—Continued.

Number ...	...	...	...	...	...	126
Name ...	...	...	...	...	...	Burton Hempy 9th.
Born ...	...	...	...	...	...	March 21, 1923.
Live weight, in lbs.	...	...	...	...	...	1,052
Last Calved ...	...	...	...	...	...	Sept. 21.
Days since Calving	...	...	...	...	...	28
Weight of Milk, 1st day	...	...	...	...	...	Morn Even
Weight of Milk, 2nd day	...	...	...	...	...	24.0 20.1
Total	...	...	...	...	...	22.0 19.7
Average	...	...	...	...	...	40.0 39.8
Percentage	...	...	...	...	...	23.6 19.9
Composition of the Milk.	Fat ...	...	...	...	...	3.16 5.10
	Solids other than Fat	...	...	...	...	9.20 9.06
	Total Solids	...	...	...	...	12.36 14.16
Actual weight of Fat, in lbs.	...	...	...	...	...	0.725 1.01
Calculation of Points multiply by 20...	...	...	...	...	...	14.50 20.2
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	2.11 1.80
Calculation of Points multiply by 4 ...	...	...	...	...	...	8.44 7.2
Points	For time since Calving	...	...	...	...	42.9
	For weight of Milk (lbs.)	...	...	...	...	34.7
	For weight of Fat (lbs. \times 20)	...	...	...	...	15.6
	For weight of Solids other than Fat (lbs. \times 4) ...	...	...	...	...	93.2
	Total	...	...	...	...	—
	Deductions	...	...	...	...	93.2
	Points gained...	...	...	...	...	—
Remarks and Awards ...	...	...	...	...	...	2nd Prize.

CLASS 8.—BRITISH FRIESIAN COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK.
BORN ON OR PREVIOUS TO 1ST AUGUST, 1920).

Number ... Name ...	...	...	...	...	131 Teeling Torch 13th.	133 Eastern Nancy	134 Walden Lena.	136 Knobworth (Crest & Rosedale)
Born ...	...	...	...	...	Nov. 25, 1917.	Sept. 5, 1917.	Oct. 17, 1917.	Jan. 10, 1919.
Live weight, in lbs.	...	...	...	...	1,462	1,534	1,308	1,402
Last Calved ...	...	...	...	...	Sept. 20,	Oct 2,	Sept. 11,	Sept. 24,
Days since Calving	...	...	...	...	29	17	38	25
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	29.3 27.0	35.8 31.0	42.6 32.0	27.5 22.6
Total	...	...	...	...	31.3 25.1	37.9 30.3	40.8 31.1	26.8 22.3
Average ...	...	...	...	...	60.6 52.1	73.7 61.3	83.4 63.1	54.3 44.9
Percentage { Fat ... Composition of { Solids other than Fat the Milk. { Total Solids	...	...	...	...	30.3 20.05	36.85 30.65	41.7 31.55	27.15 22.45
Actual weight of Fat, in lbs. ...	...	...	...	...	2.90 4.03	2.92 4.64	3.17 3.98	3.13 3.54
Calculation of Points multiply by 20...	...	...	...	...	9.42 9.53	8.90 8.74	9.29 9.16	9.09 8.92
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	12.32 13.56	11.82 13.38	12.46 13.14	12.22 12.46
Calculation of Points multiply by 4 ...	...	...	...	...	0.88 1.05	1.08 1.42	1.32 1.26	0.85 0.79
For time since Calving	...	...	...	...	17.60 21.0	21.60 28.4	26.40 25.2	17.00 15.8
For weight of Milk (lbs.)	...	...	...	...	2.86 2.48	3.29 2.68	3.87 2.89	2.46 2.0
For weight of Fat (lbs. × 20)	...	...	...	...	11.44 9.92	13.16 10.72	15.48 11.56	9.84 8.0
For weight of Solids other than Fat	...	...	...	...	—	—	—	—
(lbs. × 4) ...	...	...	...	...	56.3	67.5	73.3	49.6
Total ...	...	...	...	...	38.6	50.0	51.6	32.8
Deductions ...	...	...	...	...	21.4	23.9	27.0	17.8
Points gained...	...	...	...	...	116.3	141.4	151.9	100.2
Remarks and Awards ...	...	...	...	...	10.0	10.0	—	—
	...	...	...	...	106.3	131.4	151.9	100.2
	...	...	...	...	Highly Commended.	3rd Prize.		

CLASS 8.—BRITISH FRIESIAN COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1920)—Continued.

Number ... Name ...	137 Haydon Pax	138 Glen Camco	139 Fellhampton Susan	140 Penshuist Hyacinth.
Born ...	June 27, 1919. 1,360	March 31, 1918. 1,341	Oct 3, 1915. 1,417	April 21, 1917 1,618
Live weight, in lbs. ...	Aug. 28. 52	Sept. 28. 21	Aug. 5. 75	Sept. 14. 85
Last Calved ...	Morn Even	Morn Even	Morn Even	Morn Even
Days since Calving ...	39.3 28.8	23.4 21.7	41.7 33.3	37.8 29.9
Weight of Milk, 1st day ...	33.9 34.1	25.1 21.7	40.4 36.8	38.0 29.8
Weight of Milk, 2nd day ...	73.2 62.9	48.5 43.4	82.1 70.1	75.8 59.7
Total ...	36.6 31.45	24.25 21.7	41.05 35.05	37.9 29.85
Average ...	4.21 4.92	4.39 5.73	3.55 3.69	2.63 3.33
Percentage { Fat ...	8.95 8.92	9.5 9.25	9.23 8.95	8.59 8.47
Composition of { Solids other than Fat	13.16 13.84	14.04 14.98	12.78 12.64	11.22 11.80
the Milk. { Total Solids	1.54 1.54	1.06 1.24	1.46 1.29	1.00 0.99
Actual weight of Fat, in lbs. ...	30.80 30.8	21.20 24.8	29.20 25.8	20.00 19.8
Calculation of Points multiply by 20 ...	3.28 2.8	2.34 2.0	3.8 3.13	3.25 2.52
Actual weight of Solids other than Fat, in lbs.	13.12 11.2	9.36 8.0	15.2 12.52	13.00 10.08
Calculation of Points multiply by 4 ...	1.2	—	3.5	—
For time since Calving ...	68.0	45.9	76.1	67.7
For weight of Milk (lbs) ...	61.6	46.0	55.0	39.8
For weight of Fat (lbs. × 20) ...	24.3	17.4	27.7	23.1
For weight of Solids other than Fat (lbs. × 4) { Total ...	155.1	109.3	162.3	130.6
Deductions ...	—	—	—	20.0
Points gained ...	155.1	109.3	162.3	110.6
Remarks and Awards ...	2nd Prize.		1st Prize Spencer Cup, Reserve Gold Medal, Reserve Botham Cup, Reserve Shirley Cup	Highly Commended.

CLASS 8.—BRITISH FRIESIAN COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1920)—Continued.

Number Name	...	...	...	...	141 Beebles (Gloria).	142 Mundham Troutlescum	145 Brooklands Princess Flashlight	148 Hamel's Beryl
Born	...	...	...	...	Ct. 24, 1916. 1,527	June 12, 1919. 1,334	Nov. 10, 1918. 1,278	Nov. 18, 1919. 1,376
Live weight, in lbs	...	...	...	...	July 20. 91	Sept. 9. 40	Aug. 3. 77	Sept. 29. 20
Last Calved	...	...	...	...	...	...	...	...
Days since Calving	...	...	...	...	...	...	...	...
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	23.8 20.0	29.9 27.6	29.2 19.5	38.7 30.1
Total	...	...	...	...	28.8 23.9	27.6 20.8	25.4 24.3	36.9 29.8
Average	...	...	...	...	52.6 43.9	57.5 57.4	44.6 43.8	75.6 59.9
Percentage	...	...	...	...	26.3 21.95	28.75 28.7	27.3 21.9	37.8 29.95
Composition of the Milk.	{ Fat Solids other than Fat Total Solids				4.25 4.39	3.86 3.48	2.82 3.01	4.11 4.74
Actual weight of Fat, in lbs.	...	...	...	...	8.21 8.29	8.78 8.76	8.30 8.15	9.11 8.94
Calculation of Points multiply by 20...	...	...	...	...	12.46 12.68	12.64 12.24	11.12 11.16	13.22 13.68
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	1.12 0.96	1.11 1.0	0.77 0.66	1.55 1.42
Calculation of Points multiply by 4 ...	...	...	...	...	22.40 19.2	22.20 20.0	15.40 13.2	31.00 28.4
Points	{ For time since Calving For weight of Milk (lbs.) For weight of Fat (lbs. × 20) For weight of Solids other than Fat (lbs. × 4) ...				2.16 1.82	2.52 2.51	2.27 1.78	3.44 2.68
Remarks and Awards	...	...	...	...	8.64 7.28	10.08 10.04	9.08 7.12	13.76 10.72
	...	...	...	...	5.1	—	3.7	—
	...	...	...	...	48.2	57.4	49.2	67.8
	...	...	...	...	41.6	42.2	28.6	59.4
	...	...	...	...	15.9	20.1	16.2	24.5
	...	...	...	...	110.8	119.7	97.7	151.7
	...	...	...	...	20.0	—	30.0	—
	...	...	...	...	90.8	119.7	67.7	151.7
	...	...	...	...	...	Highly Commended.	Disqualified.	Reserve.

CLASS 8.—BRITISH FRIESIAN COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1920)—Continued.

Number ... Name ...	...	...	...	...	...	151 Bulkeley Hebdn of Troy	153 Golf Eclipse
Porn ...	...	...	...	...	...	Dec. 30, 1918. 1,262	July 17, 1919. 1,287
Live weight, in lbs.	...	...	...	...	...	Sept. 30. 19	Sept. 13. 36
Last Calved ...	...	...	...	...	...
Days since Calving	...	...	...	...	...
Weight of Milk, 1st day	...	...	...	...	...	Morn	Morn
Weight of Milk, 2nd day	...	...	...	...	...	Even	Even
Total	...	...	...	...	...	34.5 30.4	36.2 29.8
Average ...	...	...	...	...	...	38.8 30.3	34.7 28.9
Percentage { Fat ...	...	...	...	...	...	73.3 60.7	70.9 58.7
Composition of { Solids other than Fat	...	...	...	...	...	36.05 30.35	35.45 29.35
the Milk. { Total Solids	...	...	...	...	...	3.94 3.76	3.31 3.67
Actual weight of Fat, in lbs. ...	...	...	...	...	...	8.92 8.88	9.43 9.07
Calculation of Points multiply by 20...	...	...	...	...	...	12.86 12.64	12.74 12.74
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	1.45 1.14	1.17 1.07
Calculation of Points multiply by 4 ...	...	...	...	...	...	29.00 22.8	23.40 21.4
Points { For time since Calving For weight of Milk (lbs.) For weight of Fat (lbs. × 20) For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	...	3.27 2.69	3.34 2.65
	...	...	...	...	...	13.08 10.76	13.36 10.60
	...	...	...	...	...	67.0	64.8
	...	...	...	...	...	51.8	44.8
Total ...	...	...	...	...	...	23.8	24.0
Deductions ...	...	...	...	...	...	142.6	133.6
Points gained...	...	...	...	...	...	142.6	133.6
Remarks and Awards ...	...	...	...	...	...	Highly Commended.	Highly Commended.

CLASS 9.—BRITISH FRIESIAN COWS (BORN AFTER 1ST AUGUST, 1920, AND PREVIOUS TO 1ST AUGUST, 1922)—Continued

Number ... Name ..	...	...	...	...	163 Hache Veepers	104 Thompson Karel's Eendy	171 Winchester Musk.
Born ...	...	...	...	...	Nov 13, 1921.	Dec 5, 1920.	Dec. 20, 1920
Live weight, in lbs.	...	...	...	...	1,456	1,586	1,334
Last Calved ...	...	...	...	...	Sept. 4.	June 17.	Sept. 29.
Days since Calving	...	...	...	...	45	124	20
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	30.6 30.5	38.0 25.2	39.9 35.1
Total	...	...	...	...	30.5 30.7	29.3 25.8	37.6 36.0
Average ...	...	...	...	...	61.1 61.2	67.3 51.0	77.5 71.1
Percentage	...	...	...	...	30.55 30.6	33.65 25.5	38.75 35.55
Composition of { Fat ...	...	...	...	...	2.73 4.50	3.43 4.78	2.32 3.67
the Milk. { Solids other than Fat	...	...	...	...	8.83 9.12	8.55 8.62	8.70 8.77
{ Total Solids	...	...	...	...	11.56 13.62	11.98 13.40	11.02 12.44
Actual weight of Fat, in lbs. ...	...	...	...	...	0.84 1.38	1.15 1.22	0.90 1.3
Calculation of Points multiply by 20...	...	...	...	...	16.80 27.6	23.0 24.4	18.0 26.0
Actual weight of Solids other than Fat, in lbs	...	...	...	...	2.72 2.79	2.86 2.2	3.36 3.1
Calculation of Points multiply by 4 ...	...	...	...	...	10.88 11.16	11.44 8.8	13.44 12.4
Points { For time since Calving For weight of Milk (lbs.) For weight of Fat (lbs. × 20) For weight of Solids other than Fat (lbs. × 4) ...	...	...	...	...	0.5	8.4	—
	...	...	...	...	61.1	59.1	74.3
	...	...	...	...	44.4	47.4	44.0
	...	...	...	...	22.0	20.2	25.8
	...	...	...	...	128.0	135.1	144.1
Total ...	...	...	...	...	10.0	—	10.0
Deductions	...	...	...	...	118.0	135.1	134.1
Points gained...	...	...	...	...	Reserve and Highly Commended.	2nd Prize.	3rd Prize.
Remarks and Awards ...	...	...	...	...

CLASS 10—BRITISH FRIESIAN HEIFERS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK.
BORN ON OR AFTER 1ST AUGUST, 1922).

Number ...	...	...	...	177	182	185
Name ..	...	...	...	Haydon Beautiful and	Hanels Eleanor.	(doff Dorrit 2nd
Born ...	...	...	...	Dec 8, 1922.	Sept. 27, 1922.	Oct. 11, 1922.
Live weight, in lbs.	...	...	...	1,396	1,324	1,292
Last Calved ...	...	...	...	Sept. 19.	May 9.	Sept. 17.
Days since Calving	...	...	...	30	163	32
Weight of Milk, 1st day	...	...	...	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	16-3 14-0	23-7 18-3	27-7 20-7
Total	...	...	...	16-3 13-2	21-0 18-1	24-3 20-4
Average ...	...	...	...	32-6 27-2	44-7 36-4	52-0 41-1
Percentage { Fat ...	...	...	...	16-3 13-6	22-35 18-2	26 0 20-55
Composition of { Solids other than Fat	...	...	...	4-83 3-66	3-82 3-89	3-41 4-23
the Milk. { Total Solids	...	...	...	8-91 9-04	8 70 8-51	9-43 9-85
Actual weight of Fat, in lbs. ...	...	...	...	13-74 12-70	12-52 12-40	12-84 14-08
Calculation of Points multiply by 20...	...	...	...	0-79 0-5	0-855 0-71	0-885 0-87
Actual weight of Solids other than Fat, in lbs	...	...	...	15-80 10-0	17-10 14-2	17 70 17-4
Calculation of Points multiply by 4 ...	...	...	...	1-46 1-23	1-94 1-55	2-46 2 02
Points { For time since Calving	...	...	...	5-84 49-2	7-76 6-2	9 84 8 08
	...	...	...	—	12 0	—
	...	...	...	29-9	40-5	46-5
	...	...	...	25-8	31 3	35-1
Points { For weight of Fat (lbs. × 20)	...	...	...	10-8	14-0	17-9
	...	...	...	66-5	97 8	99 5
	—	—	—
	...	...	...	66 5	97-8	99 5
Remarks and Awards ...	...	...	...	—	2nd Prize.	1st Prize.

CLASS 12.—DAIRY SOUTH DEVON COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK OF THE RECORDED DAIRY SOUTH DEVON CATTLE SOCIETY).

Number	...	...	...	...	...	100	192	194	196
Name	...	...	...	...	...	Ramsland Dainty	Perry Lady 2nd.	Latson Milkmaid.	Latson Cowslip 2nd
Born	...	...	...	...	...	Oct 6, 1919.	June 20, 1919.	April, 1914.	May, 1921.
Number of Calves	...	...	...	...	...	1,572	1,492	1,548	1,370
Last Calved	...	...	...	...	...	July 17.	June 17.	July 27.	Sept. 13.
Days since Calving	...	...	...	...	...	94	124	84	36
Live weight, in lbs.	...	...	...	...	...	Morn	Morn	Morn	Morn
	...	...	...	...	...	Even	Even	Even	Even
Weight of Milk, 1st day	...	...	...	...	...	25-9	24-3	26-7	15-2
Weight of Milk, 2nd day	...	...	...	...	...	27-7	22-9	26-9	15-0
Total	...	...	...	...	...	53-6	47-2	53-6	33-7
Average	...	...	...	...	...	26-8	23-6	26-8	16-85
Percentage	...	...	...	...	...	4-00	5-63	5-20	6-06
Composition of	...	...	...	...	...	9-02	9-67	9-26	9-02
the Milk.	...	...	...	...	...	13-02	15-30	14-46	15-08
Actual weight of Fat, in lbs.	...	...	...	...	...	1-07	1-33	1-39	1-02
Calculation of Points multiply by 20...	...	...	...	...	...	21-4	26-6	27-8	20-4
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	2-41	2-28	2-48	1-52
Calculation of Points multiply by 4	...	...	...	...	...	9-64	9-12	9-92	6-08
Points	...	...	...	...	...	5-4	8-4	4-4	—
For time since Calving	...	...	...	...	...	48-3	41-1	47-9	31-9
For weight of Milk (lbs.)	...	...	...	...	...	37-8	46-4	49-6	33-4
For weight of Fat (lbs. × 20)	...	...	...	...	...	17-3	15-8	17-6	11-5
For weight of Solids other than Fat	...	...	...	...	...	108-8	111-7	119-5	76-8
(lbs. × 4)	...	...	...	...	...	—	—	—	—
Total	...	...	...	...	...	108-8	111-7	119-5	76-8
Deductions	...	...	...	...	...	—	—	—	—
Points gained...	...	...	...	...	...	—	—	—	—
Remarks and Awards	...	...	...	...	...	3rd Prize.	2nd Prize.	1st Prize.	—

CLASS 13.—DEVON COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK OR ENTERED IN THE SUPPLEMENTAL REGISTER OF SUCH HERD BOOK).

Number ... Name ...	...	...	...	...	200 (Compton Happiness)	201 Lovely 4th	202 (Compton Holly)	203 Gentle
Born ...	...	...	...	...	Sept. 22, 1920.	May 5, 1918.	Sept. 16, 1921.	March 4, 1920.
Live weight, in lbs.	...	...	...	...	1,415	1,348	1,235	1,258
Last Calved ...	...	...	...	...	Sept. 17.	Sept. 11.	Sept. 27.	Oct. 6.
Days since Calving	...	...	...	...	32.	38	22	13
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	17.4 15.8	25.5 21.4	23.6 19.5	27.3 21.7
Total	...	...	...	...	18.5 15.2	23.8 19.3	23.7 19.0	29.0 21.4
Average	...	...	...	...	35.9 31.0	49.3 40.7	47.3 38.5	56.3 43.1
Percentage { Fat ...	...	...	...	...	17.95 15.5	24.65 20.35	23.65 19.25	28.15 21.55
Composition { Solids other than Fat	...	...	...	...	4.79 4.84	4.21 4.15	5.27 4.45	4.85 4.05
the Milk. { Total Solids	...	...	...	...	9.47 9.18	9.23 9.07	9.47 9.25	9.51 9.51
Actual weight of Fat, in lbs.	...	...	...	...	14.26 14.02	13.44 13.22	14.74 13.70	14.36 13.56
Calculation of Points multiply by 20...	...	...	...	...	0.86 0.75	1.03 0.84	1.24 0.86	1.36 0.87
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	17.2 15.0	20.6 16.8	24.8 17.2	27.2 17.4
Calculation of Points multiply by 4 ...	...	...	...	...	1.70 1.42	2.27 1.83	2.23 1.79	2.67 2.05
Points { For time since Calving	...	...	...	...	6.80 5.68	9.08 7.32	8.92 7.16	10.68 8.20
For weight of Milk (lbs.)	...	...	...	...	33.5	45.0	42.9	49.7
For weight of Fat (lbs. × 20)	...	...	...	...	32.2	37.4	42.0	44.6
For weight of Solids other than Fat	...	...	...	...	12.5	16.4	16.1	18.9
(lbs. × 4) ...	...	...	...	...	78.2	98.8	101.0	113.2
Total ...	...	...	...	...	78.2	98.8	101.0	113.2
Deductions ...	...	...	...	...	78.2	98.8	101.0	113.2
Points gained...	...	...	...	...	78.2	98.8	101.0	113.2
Remarks and Awards ...	...	...	...	...	Highly Commended. Reserve Bunk Cup	Reserve and Highly Commended	3rd Prize.	

CLASS 13.—DEVON COWS—Continued.

Number ... Name ...	...	...	...	...	204 Lady 9th.	205 Janet.	206 May	207 Wynford Dalha.
Born ...	...	...	...	...	Sept. 26, 1921.	1918.	1919.	Jan. 19, 1921.
Live weight, in lbs.	...	...	...	...	1,066	1,408	1,354	1,426
Last Calved ...	...	...	...	...	Sept. 17.	Sept. 14.	Sept. 9.	April 8.
Days since Calving ...	...	...	...	...	32	35	40	194
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	21.2 18.3	28.9 25.7	30.5 26.1	15.0 14.1
Total	...	...	...	...	24.3 20.4	29.5 27.3	33.2 26.6	18.3 17.0
Average ...	...	...	...	...	45.5 38.7	58.4 53.0	63.7 52.7	33.3 31.1
Percentage	...	...	...	...	22.75 19.35	29.2 26.5	31.85 26.35	16.65 15.55
Composition of	...	...	...	...	3.62 3.44	4.63 4.57	4.60 4.96	4.36 4.46
the Milk.	...	...	...	...	9.14 9.16	9.47 9.15	9.30 9.10	9.36 9.18
Actual weight of Fat, in lbs.	...	...	...	...	12.76 12.60	14.10 13.72	13.90 14.06	13.72 13.64
Calculation of Points multiply by 20...	...	...	...	...	0.825 0.66	1.35 1.21	1.46 1.31	0.725 0.69
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	16.5 13.2	27.0 24.2	29.2 26.2	14.5 13.8
Calculation of Points multiply by 4 ...	...	...	...	...	2.08 1.77	2.76 2.43	2.96 2.40	1.56 1.43
Points	...	...	...	...	8.32 7.08	11.04 9.72	11.84 9.60	6.24 5.72
For time since Calving	...	...	...	...	—	—	—	12.0
For weight of Milk (lbs.)	...	...	...	...	42.1	55.7	58.2	32.2
For weight of Fat (lbs. × 20)	...	...	...	...	29.7	51.2	55.4	28.3
For weight of Solids other than Fat (lbs. × 4) ...	...	...	...	...	15.4	20.8	21.4	12.0
Total ...	...	...	...	...	87.2	127.7	135.0	84.5
Deductions ...	...	...	...	...	—	—	—	—
Points gained...	...	...	...	...	87.2	127.7	135.0	84.5
Remarks and Awards ...	...	...	...	...	2nd Prize.	1st Prize.	Busk Cup.	—

CLASS 14.—RED POLL COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK,
BORN ON OR PREVIOUS TO 1ST AUGUST, 1920).

Number ...	...	...	...	208	211	212	213
Name ...	...	...	...	Hardwick Ashberry.	Spalding Pearl.	Hutton Dahlia 2nd.	Harefield Ruth.
Born ...	...	...	...	July 5, 1913.	April 2, 1919.	Sept 24, 1919.	Feb. 18, 1916.
Live weight, in lbs.	...	...	...	1,487	1,176	1,280	1,202
Last Calved ...	...	...	...	Aug. 3.	Sept. 14.	Sept. 21.	Oct. 1.
Days since Calving	...	...	...	77	35	28	18
Weight of Milk, 1st day	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	31.1 35.4	33.3 28.5	35.3 30.3	19.0 15.8
Total ...	...	...	...	31.4 31.9	33.1 25.3	32.1 29.0	19.8 15.7
Average ...	...	...	...	62.5 67.3	66.4 53.8	67.4 59.3	38.8 31.5
Percentage { Fat ...	...	...	...	31.25 33.65	33.2 26.9	33.7 29.65	19.4 15.75
Composition of { Solids other than Fat	...	...	...	3.12 5.07	3.27 4.45	3.50 4.31	6.58 6.65
the Milk. { Total Solids	...	...	...	9.74 8.95	9.47 8.50	9.66 8.75	10.32 9.25
Actual weight of Fat, in lbs. ...	...	...	...	12.86 14.02	12.74 12.95	13.16 13.06	16.90 15.90
Calculation of Points multiply by 20...	...	...	...	0.97 1.71	1.08 1.20	1.18 1.28	1.27 1.05
Actual weight of Solids other than Fat, in lbs.	...	...	...	19.4 34.2	21.6 24.0	23.6 25.6	25.4 21.0
Calculation of Points multiply by 4 ...	...	...	...	3.04 3.01	3.15 2.29	3.25 2.60	2.00 1.46
Points { For time since Calving ...	...	...	...	12.16 12.04	12.60 9.16	13.00 10.40	8.00 5.84
{ For weight of Milk (lbs.) ...	...	...	...	3.7	—	—	—
{ For weight of Fat (lbs. × 20) ...	...	...	...	64.9	60.1	63.3	35.1
{ For weight of Solids other than Fat	...	...	...	53.6	45.6	49.2	46.4
(lbs. × 4) ...	...	...	...	24.2	21.8	23.4	13.8
Total ...	...	...	...	146.4	127.5	135.9	95.3
Deductions ...	...	...	...	—	—	—	—
Points gained...	...	...	...	146.4	127.5	135.9	95.3
Remarks and Awards ...	...	...	...	1st Prize	Reserve	2nd Prize.	—
	...	...	...	Equal Res. for Red Poll	and Highly	Equal Res. for Red Poll	—
	...	...	...	Cattle Society's Prize	Commended.	Cattle Society's Prize	—

CLASS 16.—RED POLL HEIFERS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK.
BORN ON OR AFTER 1ST AUGUST, 1922).

Number ...	...	...	...	...	...	224	225	227	229
Name ...	...	...	...	...	...	Basildon Paschenation.	Basildon Plotter 2nd.	Hutton Apricot 2nd.	Saham Tanker Draught
Born ...	...	...	...	...	...	April 18, 1923.	June 7, 1923.	May 6, 1923.	Sept. 4, 1922.
Live weight, in lbs.	...	...	...	...	...	1,086	916	1,176	1,306
Last Calved ...	...	...	...	...	...	Aug. 18,	Sept. 3.	Sept. 24.	July 30,
Days since Calving	...	...	...	...	...	62	46	25	81
Weight of Milk, 1st day	...	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	...	19.1 14.5	24.8 20.1	26.4 19.4	20.9 20.3
Total	...	...	...	...	...	20.5 15.6	24.6 21.6	23.5 18.9	25.1 19.3
Average ...	...	...	...	...	...	39.6 30.1	49.4 41.7	49.9 38.3	46.0 39.6
Percentage { Fat ...	...	...	...	...	...	19.8 15.05	24.7 20.85	24.95 19.15	23.0 19.8
Composition of { Solids other than Fat	...	...	...	...	...	3.04 4.32	4.71 4.93	3.49 3.98	4.49 5.83
the Milk. { Total Solids	...	...	...	...	...	9.32 8.62	9.25 8.97	8.85 8.32	10.01 9.63
Actual weight of Fat, in lbs.	...	...	...	...	...	12.96 12.94	13.96 13.90	12.34 12.30	14.50 15.46
Calculation of Points multiply by 20...	...	...	...	...	...	0.72 0.65	1.16 1.03	0.87 0.76	1.03 1.15
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	14.4 13.0	23.2 20.6	17.4 15.2	20.6 23.0
Calculation of Points multiply by 4 ...	...	...	...	...	...	1.84 1.30	2.28 1.87	2.21 1.59	2.32 1.91
{ For time since Calving	...	...	...	...	...	7.36 5.20	9.12 7.48	8.84 6.36	9.28 7.64
{ For weight of Milk (lbs.)	...	...	...	...	...	2.2	0.6	—	4.1
{ For weight of Fat (lbs. × 20)	...	...	...	...	...	34.9	45.6	44.1	42.8
{ For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	...	27.4	43.8	32.6	43.6
Total ...	...	...	...	...	...	12.6	16.6	15.2	16.9
Deductions ...	...	...	...	...	...	77.1	106.6	91.9	107.4
Points gained...	...	...	...	...	...	—	—	10.0	—
Remarks and Awards ...	...	...	...	...	...	77.1	106.6	81.9	107.4
	...	...	...	...	...	Reserve and Highly Commended.	2nd Prize. Reserve Red Poll Cattle Soc.'s Prize.	3rd Prize.	1st Prize. Red Poll Cattle Society's Prize.

CLASS 16.—RED POLL HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1922) —Continued.

Number ...	...	...	...	...	...	230
Name ...	...	...	...	...	...	Meddler Glenn.
Born ...	...	...	...	...	...	May 25, 1923.
Live weight, in lbs.	...	...	...	...	...	1,264
Last Calved ...	...	...	...	...	...	Sept 13
Days since Calving	...	...	...	...	...	36
Weight of Milk, 1st day	...	...	...	...	...	Morn Even
Weight of Milk, 2nd day	...	...	...	...	...	13.1 12.8
Total ...	...	...	...	...	...	13.9 11.6
Average ...	...	...	...	...	...	27.0 24.4
Percentage of Fat ...	...	...	...	...	...	13.5 12.2
Composition of the Milk.	...	...	...	...	...	3.84 4.79
Actual weight of Fat, in lbs.	...	...	...	...	...	9.26 8.99
Calculation of Points multiply by 20...	...	...	...	...	...	13.10 13.78
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	0.52 0.585
Calculation of Points multiply by 4 ...	...	...	...	...	...	10.4 11.7
For time since Calving	...	...	...	...	...	1.25 1.10
For weight of Milk (lbs.)	...	...	...	...	...	5.00 4.40
For weight of Fat (lbs. × 20)	...	...	...	...	...	25.7
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	...	22.1
Total ...	...	...	...	...	...	9.4
Deductions	...	...	...	...	...	57.2
Points gained...	...	...	...	...	...	57.2
Remarks and Awards ...	...	...	...	...	...

CLASS 17.—BLUE ALBION COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK).

Number Name	238 Branshall Joan	239 Blackmore Marigold	241 Pike Veredely	242 Bathorne Giddy Girl
Born	—	—	1919. 1 519	1919. 1 367
Live weight, in lbs.	1 328	1 515	Sept. 11.	Oct. 2.
Last Calved	Sept. 14.	Aug. 27.	38	17
Days since Calving	35	53		
Weight of Milk, 1st day	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	30.5 25.9	27.2 20.8	41.0 28.6	31.3 25.6
Total	29.2 25.6	25.2 20.4	36.7 31.6	29.0 25.3
Average	59.7 51.5	52.4 41.2	77.7 60.2	60.3 51.9
Percentage	29.85 25.75	29.2 20.6	38.85 30.1	30.15 25.95
Composition of the Milk.	4.40 5.26	3.80 3.22	3.67 3.87	4.00 5.93
Actual weight of Fat, in lbs.	9.62 9.06	8.84 8.66	9.05 8.53	9.36 8.67
Calculation of Points multiply by 20...	14.02 14.32	12.04 11.88	12.72 12.40	13.36 14.60
Actual weight of Solids other than Fat, in lbs.	1.31 1.36	0.99 0.66	1.43 1.16	1.20 1.54
Calculation of Points multiply by 4 ...	26.2 27.2	19.8 13.2	28.6 23.2	24.0 30.8
For time since Calving	2.87 2.32	2.31 1.79	3.52 2.57	2.82 2.25
For weight of Milk (lbs.)	11.48 9.28	9.24 7.16	14.08 10.28	11.28 9.00
For weight of Fat (lbs. × 20)	—	1.3	—	—
For weight of Solids other than Fat	55.6	46.8	69.0	56.1
(lbs. × 4) ...	53.4	33.0	51.8	54.8
Total ...	20.8	16.4	24.4	20.3
Deductions	129.8	97.5	145.2	131.2
Points gained...	129.8	97.5	145.2	131.2
Remarks and Awards	Reserve and Highly Commended.		1st Prize.	3rd Prize.

CLASS 17.—BLUE ALBION COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK)—Continued.

Number ...	...	...	...	...	...	243
Name ...	...	...	...	...	...	Pike Venice.
Born ...	...	...	...	...	...	1920.
Live weight, in lbs.	...	...	...	...	...	1,358
Last Calved ...	...	...	...	...	...	Sept. 14.
Days since Calving	...	...	...	...	...	35
Weight of Milk, 1st day	...	...	...	...	...	Morn Even
Weight of Milk, 2nd day	...	...	...	...	...	32.2 27.6
Total	...	...	...	...	...	52.1 26.8
Average ...	...	...	...	...	...	64.3 54.4
Percentage { Fat ...	...	...	...	...	...	32.15 27.2
Composition of { Solids other than Fat	...	...	...	...	...	4.02 5.75
the Milk. { Total Solids	...	...	...	...	...	9.12 8.67
Actual weight of Fat, in lbs.	...	...	...	...	...	13.14 14.42
Calculation of Points multiply by 20...	...	...	...	...	...	1.29 1.56
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	25.8 31.2
Calculation of Points multiply by 4 ...	...	...	...	...	...	2.93 2.36
{ For time since Calving	...	...	...	...	...	11.72 9.44
{ For weight of Milk (lbs.)	...	...	...	...	...	—
{ For weight of Fat (lbs. × 20)	...	...	...	...	...	59.4
{ For weight of Solids other than Fat	...	...	...	...	...	57.0
(lbs. × 4) ...	...	...	...	...	...	21.2
Total ...	...	...	...	...	...	137.6
Deductions	...	...	...	...	...	—
Points gained...	...	...	...	...	...	137.6
Remarks and Awards ...	...	...	...	...	...	2nd Prize.

CLASS 19.—AYRSHIRE COWS.—*Continued.*

Number ... Name ...	...	...	...	...	256 Dalpeddar Florn.	257 Rigg Rosle.	259 Greenan Kate 6th.	260 Muckellon Miss Brown
Born ...	...	...	...	...	Mar. 2, 1917. 1,440	May 2, 1921. 1,116	Mar. 27, 1920. 1,069	March, 1917. 1,103
Live weight, in lbs.	...	...	...	...	Sept. 15.	Oct. 2.	Aug. 26.	Sept. 5.
Last Calved ...	...	...	...	...	34	17	54	44
Days since Calving	...	...	...	...	Morn	Morn	Morn	Morn
	...	...	...	...	Even	Even	Even	Even
Weight of Milk, 1st day	...	...	...	...	39.8	31.5	29.5	29.4
Weight of Milk, 2nd day	...	...	...	...	32.6	29.7	22.2	21.9
Total	...	...	...	...	38.0	35.6	29.6	26.0
Average	...	...	...	...	31.3	28.0	24.4	18.4
	...	...	...	...	77.8	67.1	59.1	55.4
	...	...	...	...	63.9	57.7	46.6	40.3
	...	...	...	...	38.9	33.55	29.55	27.7
	...	...	...	...	31.95	28.85	23.3	20.15
Percentage	...	...	...	...	3.09	3.24	4.27	1.79
Composition of	...	...	...	...	3.97	5.13	5.31	3.96
the Milk.	...	...	...	...	8.50	9.54	8.99	8.55
	...	...	...	...	11.59	12.48	14.16	10.14
	...	...	...	...	1.20	1.48	1.24	0.80
Actual weight of Fat, in lbs.	...	...	...	...	24.0	21.8	25.2	9.9
Calculation of Points multiply by 20...	...	...	...	...	25.4	29.6	24.8	16.0
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	3.30	2.71	2.68	2.36
Calculation of Points multiply by 4 ...	...	...	...	...	13.20	10.84	10.72	9.44
	...	...	...	...	10.84	10.40	8.28	6.76
Points	...	...	...	...	70.9	62.4	52.9	47.9
	...	...	...	...	49.4	51.4	50.0	25.9
	...	...	...	...	24.0	23.2	19.0	16.2
	...	...	...	...	144.3	137.0	123.3	90.4
	...	...	...	...	144.3	137.0	123.3	20.0
	...	...	...	...	144.3	137.0	123.3	70.4
Remarks and Awards ...	...	...	...	...	2nd Prize.	Reserve and Highly Commended.	Highly Commended.	

Class 19.—AYRSHIRE COWS—Continued.

Number Name	261 Changplech Orie	264 Round Bush Sunkam 2nd	265 Les-suscock Fanie.	269 Millantae Mayflower.
Born	Feb. 20, 1916. 1,305	Aug. 6, 1919. 1,402	Mar. 15, 1918. 1,204	April 3, 1917. 1,316
Live weight, in lbs.	Sept. 7. 42	Sept. 18. 31	Sept. 13. 36	Aug. 20. 60
Last Calved	...	...	...	...
Days since Calving	...	...	...	...
Weight of Milk, 1st day	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	26-6 19 1	34-9 28 1	25-9 22 5	47-0 31-1
Total	26-4 20-7	33-0 27-4	23-2 23-5	46-8 33-9
Average	53-0 39-8	67-9 55-5	49 1 46-0	93-8 65-0
Percentage	26-5 19-9	33-95 27-75	24-55 23 0	46-9 32-5
Composition of the Milk.	2-98 4-13 8-70 8-89	3-51 5-90 9-57 8-70	4-72 5-07 7-80 8-13	3 31 3-86 8-65 8-76
Actual weight of Fat, in lbs.	11-68 13-02	13-08 14-60	12-52 13-20	11-96 12-62
Calculation of Points multiply by 20...	0-79 0-825 15-8 16-5	1-19 1-63 23-8 32-6	1-16 1-17 23-2 23-4	1-55 1-26 31-0 25-2
Actual weight of Solids other than Fat, in lbs.	2-30 1-77	3-25 2-41	1-91 1-87	4-05 2-85
Calculation of Points multiply by 4 ...	9-20 7-08	13-00 9-64	7-64 7-48	16-2 11-4
Points	0 2 46-4 32-3	61-7 56-4	47-6 46-6	2-40 79-4 56-2
For time since Calving	...	...	...	...
For weight of Milk (lbs.)	...	...	...	...
For weight of Fat (lbs. × 20)	...	...	...	...
For weight of Solids other than Fat (lbs. × 4) ...	...	...	...	...
Total ...	16-3	22-6	15-1	27-6
Deductions	95-2 10-0	140-7 ---	109-3 20-0	165-2 ---
Points gained...	85-2	140-7	89-3	165-2
Remarks and Awards	...	3rd Prize.	...	1st Prize Gold Medal, Batham Cup, Shirley Cup, Rowallan Cup, Res Spence Cup.

CLASS 19.—AYRSHIRE COWS—Continued.

Number ...	...	...	...	...	270	271	272	275
Name ...	...	...	...	...	Thornhill Empress,	Hatfield Roseland 2nd	Low Milton White-Spell	Dunlop Harperschord,
Born ...	...	...	...	...	Dec. 16, 1919.	Feb. 27, 1920.	Jan. 31, 1918.	Jan. 19, 1921.
Live weight, in lbs.	...	...	...	...	1,147	1,320	1,168	1,162
Last Calved ...	...	...	...	...	Sept. 6.	Sept. 22	Sept. 27	Sept. 9.
Days since Calving	...	...	...	...	43	27	22	40
	...	...	...	...	Morn	Morn	Morn	Morn
	...	...	...	...	Even	Even	Even	Even
Weight of Milk, 1st day	...	...	...	...	31.1	32.6	31.9	32.7
Weight of Milk, 2nd day	...	...	...	...	27.4	32.6	27.5	28.5
Total	...	...	...	...	58.5	65.2	59.4	61.2
Average ...	...	...	...	...	29.25	32.6	29.7	30.6
Percentage	...	...	...	...	3.43	4.46	3.54	3.55
Composition of	...	...	...	...	8.53	8.66	8.90	8.95
the Milk.	...	...	...	...	11.96	13.06	13.14	12.50
Actual weight of Fat, in lbs.	...	...	...	...	1.00	1.45	1.16	1.06
Calculation of Points multiply by 20...	...	...	...	...	20.0	29.0	23.2	21.2
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	2.50	2.80	3.15	2.68
Calculation of Points multiply by 4 ...	...	...	...	...	10.00	11.20	12.60	10.72
Points {	For time since Calving	...	...	...	0.3	...	...	...
	For weight of Milk (lbs.)	...	...	...	53.0	59.2	59.5	56.1
	For weight of Fat (lbs. × 20)	...	...	...	47.2	56.0	50.4	46.5
	For weight of Solids other than Fat (lbs. × 4)	...	...	...	18.2	20.4	22.4	19.8
Total ...	...	...	...	...	118.7	135.6	132.3	122.4
Deductions	...	...	...	...	...	...	...	...
Points gained...	...	...	...	...	118.7	135.6	132.3	122.4
Remarks and Awards ...	...	...	...	...	Highly Commended.	Highly Commended.	Highly Commended.	Highly Commended.

CLASS 20.—AYRSHIRE HEIFERS (REGISTERED OR ELIGIBLE FOR REGISTRATION WITH A NUMBER IN THE HERD BOOK OR IN THE APPENDICES, BORN ON OR AFTER 1ST AUGUST, 1922).

Number ...	...	...	...	...	276	277	278	279
Name ...	...	...	...	...	Redief Mayflower 2nd	Low Milton Brenda,	Cargen Holm Proud Lady 10th	Cargen Holm White Stockings 10th.
Born ...	...	...	...	...	Oct. 22, 1922.	Jan. 8, 1923.	Nov. 24, 1922.	Nov. 8, 1922.
Live weight, in lbs.	...	...	...	...	1,046	1,155	912	1,109
Last Calved ...	...	...	...	...	Aug. 17.	Sept. 28.	Sept. 14.	Sept. 26.
Days since Calving	...	...	...	...	63	21	35	23
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	18-4 15-8	17-9 14-5	23-3 18-1	24-0 20-6
Total ...	...	...	...	...	18-3 17-8	17-4 16-3	22-3 17-9	22-6 21-1
Average ...	...	...	...	...	36-7 33-6	35-3 30-8	45-6 36-0	40-6 41-7
Percentage { Fat ...	...	...	...	...	18-35 16-8	17-65 15-4	22-8 18-0	23-3 20-85
Composition of { Solids other than Fat	...	...	...	...	4-73 5-10	4-52 5-48	4-22 5-62	3-47 5-25
the Milk. { Total Solids	...	...	...	...	8-75 8-80	9-26 9-04	9-18 8-76	8-91 8-81
Actual weight of Fat, in lbs. ...	...	...	...	...	13-48 13-90	13-78 14-52	13-40 14-38	12-38 14-06
Calculation of Points multiply by 20...	...	...	...	...	0-87 0-855	0-80 0-85	0-96 1-01	0-81 1-09
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	17-4 17-1	16-0 17-0	19-2 20-2	16-2 21-8
Calculation of Points multiply by 4 ...	...	...	...	...	1-60 1-48	1-63 1-40	2-09 1-58	2-07 1-81
Points { For time since Calving For weight of Milk (lbs.) For weight of Fat (lbs. × 20) For weight of Solids other than Fat (lbs. × 4) Total ... Deductions ... Points gained...	...	...	...	...	2-3	—	—	—
	...	...	...	...	35-2	33-1	40-8	44-2
	...	...	...	...	34-5	33-0	39-4	38-0
	...	...	...	...	12-3	12-1	14-7	15-6
	...	...	...	...	84-3	78-2	94-9	97-8
Remarks and Awards ...	...	...	...	...	84-3	78-2	94-9	97-8
	...	...	...	...	Highly Commended.	Highly Commended.	Highly Commended.	3rd Prize.

CLASS 20—AYRSHIRE HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1922)—Continued.

Number ...	...	...	...	280	284	286	287
Name ...	...	...	...	Gargen Holm Miss Jonib 15th.	Hopland Violet 4th.	Holsland Lucy 2nd	Brynholm Viper 2nd
Born ...	...	...	...	March 15, 1923.	Nov. 15, 1922.	Jan. 1, 1923.	Aug. 28, 1922.
Live weight, in lbs.	...	...	...	972	1,208	1,181	1,310
Last Calved ...	...	...	...	Oct. 1.	Sept. 11.	Oct. 1.	Sept. 22.
Days since Calving	...	...	...	18	38	18	27
Weight of Milk, 1st day	...	...	...	Morn	Morn	Morn	Morn
Weight of Milk, 2nd day	...	...	...	Even	Even	Even	Even
Total	...	...	...	24-8 19-5	19-9 18-7	18-1 15-5	27-1 23-6
Average ...	...	...	...	23-5 17-8	21-9 18-3	18-9 16-4	20-1 23-9
Percentage { Fat ...	...	...	...	48-3 37-3	41-8 37-0	37-0 31-9	56-2 47-5
Composition of { Solids other than Fat	...	...	...	24-15 18-65	20-9 18-5	18-5 15-95	28-1 23-75
the Milk. { Total Solids	...	...	...	4-20 4-85	4-01 4-50	3-74 4-34	3-91 5-01
Actual weight of Fat, in lbs. ...	...	...	...	9-02 9-13	8-91 9-24	8-86 8-78	8-50 8-67
Calculation of Points multiply by 20...	...	...	...	13-28 13-98	12-92 13-74	12-60 13-12	12-41 13-68
Actual weight of Solids other than Fat, in lbs.	...	...	...	1-01 0-90	0-84 0-83	0-69 0-69	1-10 1-19
Calculation of Points multiply by 4 ...	...	...	...	20-2 18-0	16-8 16-6	13-8 13-8	22-0 23-8
For time since Calving	...	...	...	2-18 1-70	1-86 1-72	1-64 1-40	2-38 2-06
For weight of Milk (lbs.)	...	...	...	8-72 6-80	7-44 6-88	6-56 5-60	9-52 8-24
For weight of Fat (lbs. × 20)	...	...	...	42-8	39-4	34-5	51-9
For weight of Solids other than Fat	...	...	...	38-2	33-4	27-6	45-8
(lbs. × 4)	...	...	...	15-5	14-3	12-2	17-8
Total ...	...	...	...	96-5	87-1	74-3	115-5
Deductions ...	...	...	...	—	—	—	—
Points gained...	...	...	...	96-5	87-1	74-3	115-5
Remarks and Awards ...	...	...	...	Highly Commended.	Highly Commended.	Highly Commended.	1st Prize.

CLASS 20.—AYRSHIRE HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1922)—Continued.

Number ... Name ...	...	...	...	...	...	288 Byreholm Diamond	289 Byreholm Dazzler	291 Dunlop Smallicht	293 Kilham Fillet
Born ...	...	...	...	...	...	Feb. 14, 1923. 1,025	Dec. 18, 1922. 1,020	Sept. 5, 1922. 1,248	Jan. 30, 1923. 1,050
Live weight, in lbs. ...	...	...	...	...	...	Oct. 1. 18	Sept. 21. 28	Oct. 4. 15	Sept. 11. 38
Last Calved ...	...	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Days since Calving ...	...	...	...	...	...	22-6 17-2	23-1 18-8	18-0 15-5	24-2 19-2
Weight of Milk, 1st day ...	...	...	...	...	...	23-4 21-1	23-0 18-5	19-1 15-8	23-5 18-8
Weight of Milk, 2nd day ...	...	...	...	...	...	46-0 38-3	46-1 37-3	37-1 31-3	47-7 38-0
Total ...	...	...	...	...	...	23-0 19-15	23-05 18-95	18-55 15-05	23-85 19-0
Average ...	...	...	...	...	...	3-32 4-41	4-48 5-38	5-00 4-85	4-56 5-02
Percentage { Fat ...	...	...	...	...	...	9-18 9-41	9-14 8-92	9-34 9-53	9-20 9-42
Composition of { Solids other than Fat	...	...	...	...	...	12-50 13-82	13-62 14-30	14-34 14-38	13-76 14-44
the Milk. { Total Solids	...	...	...	...	...	0-76 0-84	1-03 1-00	0-925 0-76	1-00 0-96
Actual weight of Fat, in lbs. ...	...	...	...	...	...	15-2 16-8	20-6 20-0	18-5 15-2	21-8 19-2
Calculation of Points multiply by 20...	...	...	...	...	...	2-11 1-80	2-11 1-66	1-73 1-49	2-19 1-79
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	8-44 7-20	8-44 6-64	6-92 5-96	8-76 7-16
Calculation of Points multiply by 4 ...	...	...	...	...	...	...	...	...	...
Points { For time since Calving For weight of Milk (lbs.) For weight of Fat (lbs. × 20) For weight of Solids other than Fat (lbs. × 4) ...	...	...	...	...	...	42-2	41-7	34-2	42-9
	...	...	...	...	...	32-0	40-6	33-7	41-0
	...	...	...	...	...	15-6	15-1	12-9	15-9
	...	...	...	...	...	89-8	97-4	80-8	99-8
Total ...	...	...	...	...	...	...	...	...	...
Deductions ...	...	...	...	...	...	...	...	...	...
Points gained...	...	...	...	...	...	89-8	97-4	80-8	99-8
Remarks and Awards ...	...	...	...	...	...	Highly Commended.	Reserve and Highly Commended.	Highly Commended.	2nd Prize.

CLASS 20—AYRSHIRE HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1922)—Continued.

Number	...	...	...	...	...	294 Douglas Hall Dandy 1st day 2nd	295 Douglas Hall Janet Ann 2nd	296 Lassnesson & Harvey Chalm 1st
Name	...	...	...	...	...	...	...	...
Born	...	...	...	...	...	Oct. 25, 1922.	Nov. 16, 1922.	Mar. 10, 1923.
Live weight, in lbs.	...	...	...	...	...	1,175	1,012	1,200
Last Calved	...	...	...	...	...	Sept. 15,	Sept. 23,	Sept. 10,
Days since Calving	...	...	...	...	...	34	20	39
Weight of Milk, 1st day	...	...	...	...	...	Morn	Morn	Morn
Weight of Milk, 2nd day	...	...	...	...	...	Even	Even	Even
Total	...	...	...	...	...	21-8	23-1	26-0
Average	...	...	...	...	...	18-4	17-9	20-9
Percentage	...	...	...	...	...	22-0	22-1	24-9
Composition of	...	...	...	...	...	17-8	17-8	21-0
the Milk.	...	...	...	...	...	36-2	35-7	41-9
Total Solids	...	...	...	...	...	43-8	45-2	50-9
Actual weight of Fat, in lbs.	...	...	...	...	...	21-9	22-6	25-45
Calculation of Points multiply by 20...	...	...	...	...	...	18-1	17-85	20-95
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	3-39	4-78	3-58
Calculation of Points multiply by 4	...	...	...	...	...	8-89	9-02	4-76
Points	...	...	...	...	...	12-28	13-80	8-48
For time since Calving	...	...	...	...	...	0-745	0-91	1-09
For weight of Milk (lbs.)	...	...	...	...	...	14-9	18-2	19-8
For weight of Fat (lbs. × 20)	...	...	...	...	...	1-95	2-03	2-15
For weight of Solids other than Fat	...	...	...	...	...	7-80	8-12	8-60
(lbs. × 4)	...	...	...	...	...	6-16	6-32	7-36
Total	...	...	...	...	...	40-0	40-5	46-4
Deductions	...	...	...	...	...	30-9	39-8	38-0
Points gained...	...	...	...	...	...	14-0	14-4	16-0
Remarks and Awards	...	...	...	...	...	84-9	94-7	100-4
	...	...	...	...	...	84-9	94-7	10-0
	...	...	...	...	...	Highly Commended.	Highly Commended.	Highly Commended.

CLASS 21.—GUERNSEY COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK.
BORN ON OR PREVIOUS TO 1ST AUGUST, 1920).

Number ...	...	...	...	298	299	306	307
Name ...	...	...	...	Tregothuan May.	Bacone Floweret 2nd.	Tregay Maze.	Placey of Bella Cottage
Born ...	...	...	...	March 19, 1917.	Jan. 11, 1916.	Sept. 26, 1919.	Sept. 18, 1917.
Live weight, in lbs.	...	...	...	1,077	1,192	1,065	1,084
Last Calved ...	...	...	...	Aug. 8, 72	Dec. 28, 1924.	April 11, 191	May 25, 147
Days since Calving	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 1st day	...	...	...	15-8 13-5	8-4 13-7	19-0 13-7	14-7 11-7
Weight of Milk, 2nd day	...	...	...	18-2 14-3	11-8 8-5	19-0 15-4	13-5 10-7
Total	...	...	...	34-0 27-8	20-2 22-2	38-0 29-1	28-2 22-4
Average ...	...	...	...	17-0 13-9	10-1 11-1	19-0 14-55	14-1 11-2
Percentage { Fat ...	...	...	...	3-93 4-55	4-59 7-19	7-43 7-25	6-00 6-75
Composition of { Solids other than Fat	...	...	...	8-55 8-65	9-13 9-73	8-61 9-07	9-04 8-99
the Milk. { Total Solids	...	...	...	12-48 13-20	13-72 16-92	16-04 16-32	15-04 15-74
Actual weight of Fat, in lbs. ...	...	...	...	0-67 0-63	0-465 0-80	1-41 1-05	0-85 0-755
Calculation of Points multiply by 20...	...	...	...	13-4 12-6	9-30 16-0	28-2 21-0	17-0 15-1
Actual weight of Solids other than Fat, in lbs.	...	...	...	1-46 1-20	0-93 1-08	1-64 1-32	1-27 1-01
Calculation of Points multiply by 4 ...	...	...	...	5-84 4-80	3-72 4-32	6-56 5-28	5-08 4-04
Points {	For time since Calving	...	...	3-2	12-0	12-0	10-7
	For weight of Milk (lbs.)	...	...	30-9	21-2	33-6	25-3
	For weight of Fat (lbs. × 20)	...	...	26-0	25-3	49-2	32-1
	For weight of Solids other than Fat (lbs. × 4) ...	...	...	10-6	8-0	11-8	9-1
Total ...	...	...	...	70-7	66-5	106-6	77-2
Deductions ...	...	...	...	—	—	—	—
Points gained...	...	...	...	70-7	66-5	106-6	77-2
Remarks and Awards ...	...	...	...			1st Prize, Staghoe Cup.	

CLASS 21.—GUERNSEY COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1920) (Continued.)

Number ... Name ...	...	...	...	...	...	308 Chennante of Charterred	309 Lendon of Gaeche stone	312 Righton Carrugorm.	314 Dallia Polly 2nd
Born ...	...	...	...	...	...	June 5, 1918, 1,016	July 12, 1920, 938	Nov. 11, 1919, 1,013	April 7, 1918, 1,116
Live weight, in lbs.	...	...	...	...	...	June 20, 121	July 11, 100	Aug. 30, 50	Sept. 23, 26
Last Calved ...	...	...	...	...	...
Days since Calving	...	...	...	...	...
Weight of Milk, 1st day	...	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	...	18-1 13-2	17-5 13-1	17-5 12-5	21-1 16-7
Total	...	...	...	...	...	18-3 13-5	17-4 10-1	16-3 13-6	21-4 15-8
Average	...	...	...	...	...	36-4 26-7	34-9 23-2	33-8 26-1	42-5 32-5
Percentage of Fat ...	...	...	...	...	...	18-2 13-35	17-45 11-6	16-9 13-05	21-25 16-25
Composition of Solids other than Fat	...	...	...	...	...	4-85 5-32	4-97 5-15	4-14 5-61	4-80 5-08
the Milk. { Total Solids	...	...	...	...	...	9-19 9-38	8-21 8-29	8-96 9-01	9-70 9-28
Actual weight of Fat, in lbs. ...	...	...	...	...	...	14-04 14-70	13-18 13-44	13-10 14-62	14-50 15-26
Calculation of Points multiply by 20...	...	...	...	...	...	0-88 0-71	0-865 0-595	0-70 0-73	1-02 0-97
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	17-6 14-2	17-3 11-9	14-0 14-6	20-4 19-4
Calculation of Points multiply by 4 ...	...	...	...	...	...	1-68 1-25	1-44 0-96	1-52 1-18	2-06 1-51
Points { For time since Calving	...	...	...	...	...	6-72 5-00	5-76 3-84	6-08 4-72	8-24 6-04
For weight of Milk (lbs.) ...	...	...	...	...	...	8-1	6-0	1-0	—
For weight of Fat (lbs. × 20)	...	...	...	...	...	31-6	29-1	30-0	37-5
For weight of Solids other than Fat	...	...	...	...	...	31-8	29-2	28-6	39-8
(lbs. × 4) ...	...	...	...	...	...	11-7	9-6	10-8	14-3
Total ...	...	...	...	...	...	83-2	73-9	70-4	91-6
Deductions ...	...	...	...	...	...	—	20 0	—	—
Points gained...	...	...	...	...	...	83-2	53-9	70-4	91-6
Remarks and Awards ...	...	...	...	...	...				2nd Prize.

CLASS 22.—GUERNSEY COWS (BORN AFTER 1ST AUGUST, 1920, AND PREVIOUS TO 1ST AUGUST, 1922)—Continued.

Number ... Name ...	...	...	...	...	321 McLaud Lady Richmond	322 Hockley Ivy 2nd.	323 Caldwell Cheerful	324 Cheaton Fashum.
Born ...	...	...	...	...	Feb. 15, 1921.	Dec. 10, 1921.	April 28, 1921.	Oct. 31, 1921.
Live weight, in lbs.	...	...	...	...	1,034	872	833	963
Last Calved ...	...	...	...	...	June 10.	Aug. 10.	June 23	Sept. 26
Days since Calving	...	...	...	...	131	70	118	23
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	18-4 15-9	23-9 19-0	16-2 12-9	22-5 18-0
Total	...	...	...	...	18-5 15-3	23-6 18-0	16-0 13-6	21-1 16-8
Average	...	...	...	...	30-9 31-2	47-5 37-0	32-2 26-5	43-6 34-8
Percentage { Fat ...	...	...	...	...	18-45 15-6	23-75 18-5	16-1 13-25	21-8 17-4
Composition of { Solids other than Fat	...	...	...	...	4-77 7-67	4-39 4-63	4-65 6-07	4-33 4-21
the Milk. { Total Solids	...	...	...	...	9-31 9-25	8-69 8-91	9-15 8-65	9-11 9-15
Actual weight of Fat, in lbs.	...	...	...	...	14-08 16-92	13-08 13-54	13-80 14-72	13-44 13-36
Calculation of Points multiply by 20...	...	...	...	...	0-88 1-20	1-04 0-86	0-75 0-81	0-945 0-73
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	17-6 24-0	20-8 17-2	15-0 16-2	18-9 14-6
Calculation of Points multiply by 4 ...	...	...	...	...	1-72 1-44	2-06 1-66	1-48 1-15	2-00 1-59
Points { For time since Calving	...	...	...	...	6-88 5-76	8-24 6-64	5-92 4-6	8-0 6-36
{ For weight of Milk (lbs.)	...	...	...	...	9-1	3-0	7-8	—
{ For weight of Fat (lbs. × 20)	...	...	...	...	34-1	42-3	29-4	39-2
{ For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	41-6	38-0	31-2	33-5
Total ...	...	...	...	...	12-6	14-9	10-5	14-4
Deductions ...	...	...	...	...	97-4	98-2	78-9	87-1
Points gained...	...	...	...	...	—	—	—	—
Remarks and Awards ...	...	...	...	...	97-4	98-2	78-9	87-1
	...	...	...	...	2nd Prize.	1st Prize.	Highly Commended.	2nd Prize.
	...	...	...	...	Reserve			
	...	...	...	...	Stagshoe Cup.			

CLASS 22.—GUERNSEY COWS (BORN AFTER 1ST AUGUST, 1920 AND PREVIOUS TO 1ST AUGUST, 1922)—(continued).

Number ...	...	...	...	...	...	325
Name ...	...	...	...	...	...	Cyrene's Chare.
Born ...	...	...	...	...	...	July 22, 1921
Live weight, in lbs.	...	...	...	...	...	786
Last Calved ...	...	...	...	...	...	Sept. 1,
Days since Calving	...	...	...	...	...	48
Weight of Milk, 1st day	...	...	...	...	...	Morn
Weight of Milk, 2nd day	...	...	...	...	...	Even
Total	...	...	...	...	...	23.3 16.0
Average ...	...	...	...	...	...	22.7 17.6
...	...	...	...	...	...	46.0 33.6
...	...	...	...	...	...	23.0 16.8
Percentage { Fat ...	...	...	...	...	...	3.50 3.93
Composition of { Solids other than Fat	...	...	...	...	...	8.54 9.07
the Milk. { Total Solids	...	...	...	...	...	12.04 13.00
Actual weight of Fat, in lbs.	...	...	...	...	...	0.805 0.66
Calculation of Points multiply by 20...	...	...	...	...	...	16.1 13.2
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	1.97 1.52
Calculation of Points multiply by 4 ...	...	...	...	...	...	7.88 6.08
Points { For time since Calving	...	...	...	...	...	0.8
{ For weight of Milk (lbs.)	...	...	...	...	...	39.8
{ For weight of Fat (lbs. \times 20)	...	...	...	...	...	29.3
{ For weight of Solids other than Fat	...	...	...	...	...	14.0
{ (lbs. \times 4) ...	...	...	...	...	...	83.9
Total ...	...	...	...	...	...	—
Deductions ...	...	...	...	...	...	83.9
Points gained...	...	...	...	...	...
Remarks and Awards ...	...	...	...	...	...	Highly Commended.

CLASS 23.—GUERNSEY HEIFERS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1922).

Number ... Name ...	...	...	...	...	...	327 Theodora Princess Royal	329 Calebhill Peaceful	330 Calebhill Sall	336 Rubella 2nd of Sanna
Born	...	...	...	...	...	Feb. 9, 1923. 906	Feb. 14, 1923. 888	Jan. 13, 1923. 791	Feb. 12, 1923. 770
Live weight, in lbs.	...	...	...	...	...	May 17. 155	July 23. 88	Aug. 26. 54	Aug. 30. 50
Last Calved	...	...	...	...	...	Morn	Morn	Morn	Morn
Days since Calving	...	...	...	...	...	Even	Even	Even	Even
Weight of Milk, 1st day	...	...	...	...	...	16.3	20.2	17.2	19.0
Weight of Milk, 2nd day	...	...	...	...	...	13.5	15.6	13.8	15.9
Total	...	...	...	...	...	17.4	19.5	14.3	19.6
Average	...	...	...	...	...	33.7	31.9	33.1	38.6
Percentage	...	...	...	...	...	27.2	19.85	16.55	30.4
Composition of the Milk.	...	...	...	...	...	16.85	15.95	14.05	15.2
						3.75	4.03	4.20	4.58
Actual weight of Fat, in lbs.	...	...	...	...	...	8.37	8.79	9.18	8.40
						8.38	9.42	8.78	8.44
Calculation of Points multiply by 20...	...	...	...	...	...	12.12	14.82	13.38	12.98
						12.20	14.82	14.62	13.36
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	0.63	0.86	0.695	0.745
						0.52	0.82	0.82	0.745
Calculation of Points multiply by 4	...	...	...	...	...	12.6	16.0	13.9	17.7
						10.4	17.2	16.4	14.9
Points	...	...	...	...	...	1.41	1.51	1.52	1.62
						1.14	1.51	1.24	1.28
{ For time since Calving For weight of Milk (lbs.) For weight of Fat (lbs. × 20) For weight of Solids other than Fat (lbs. × 4) ...	...	...	...	...	...	5.64	7.04	6.08	6.48
						4.56	6.04	4.96	5.12
						11.5	4.8	1.4	1.0
						30.5	35.8	30.6	34.5
						23.0	33.2	30.3	32.6
Total ... Deductions Points gained...	...	...	...	...	...	10.2	13.1	11.0	11.6
						75.2	86.9	73.3	79.7
						20.0	—	20.0	20.0
Remarks and Awards ...	...	...	...	...	...	55.2	86.9	73.3	59.7
						1st Prize.	2nd Prize.	3rd Prize.	

CLASS 24.—JERSEY COWS (ENGLISH OR ISLAND BRED. ENTERED IN OR ELIGIBLE FOR THE HERD BOOK.
BORN ON OR PREVIOUS TO 1ST AUGUST, 1920).

Number ... Name ...	...	...	...	...	337 Wimlesham Windflower	338 Blue Hayes Cat.	339 Blue Hayes Sparrow.	341 Derry's Fairy
Born ...	...	...	...	...	Feb. 6, 1920.	Mar. 13, 1919.	Dec. 16, 1917.	May 16, 1916.
Lave weight, in lbs.	...	...	...	...	996	880	871	992
Last Calved ...	...	...	...	...	Sept. 18.	June 6.	Feb. 13.	Sept. 11.
Days since Calving	...	...	...	...	31	135	248	38
Weight of Milk, 1st day	...	...	...	...	Morn	Morn	Morn	Morn
Weight of Milk, 2nd day	...	...	...	...	Even	Even	Even	Even
Total	...	...	...	...	27.1 25.0	12.7 10.4	16.3 15.2	22.2 18.0
Average ...	...	...	...	...	26.0 24.8	13.1 10.0	5.9 15.9	22.0 17.8
Percentage	...	...	...	...	53.1 49.8	25.8 20.4	22.2 31.1	44.2 35.8
Composition of	...	...	...	...	26.55 24.9	12.9 10.2	11.1 15.55	22.1 17.9
the Milk.	...	...	...	...	3.00 4.89	5.46 5.92	4.07 7.38	5.25 5.39
Actual weight of Fat, in lbs.	...	...	...	...	8.92 8.71	8.98 9.32	8.15 9.24	9.47 9.69
Calculation of Points multiply by 20...	...	...	...	...	11.92 13.60	14.44 15.24	12.22 16.02	14.72 14.98
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	0.80 1.22	0.71 0.60	0.15 1.15	1.16 0.945
Calculation of Points multiply by 4 ...	...	...	...	...	16.0 24.4	14.2 12.0	9.0 23.0	23.2 18.9
Points	...	...	...	...	2.37 2.17	1.16 0.95	0.91 1.44	2.10 1.73
For time since Calving	...	...	...	...	9.48 8.68	4.64 3.8	3.64 5.76	8.4 6.92
For weight of Milk (lbs.)	...	...	...	...	—	9.5	12.0	—
For weight of Fat (lbs. × 20)	...	...	...	...	51.5	23.1	26.7	40.0
For weight of Solids other than Fat	...	...	...	...	40.4	26.2	32.0	42.1
(lbs. × 4) ...	...	...	...	...	18.2	8.4	9.4	15.3
Total ...	...	...	...	...	110.1	67.2	80.1	97.4
Deductions ...	...	...	...	...	—	—	10.0	—
Points gained...	...	...	...	...	110.1	67.2	70.1	97.4
Remarks and Awards ...	...	...	...	...	3rd Prize.			Highly Commended.

CLASS 24.—JERSEY COWS (ENGLISH OR ISLAND BRED. BORN ON OR PREVIOUS TO 1ST AUGUST, 1920)—Continued.

Number ...	...	...	...	342 Frobie 4th.	343 Miranda's Lass	344 Phonette	349 Eastfield Lady.
Name ...	...	...	...	...	...	...	...
Born ...	...	...	...	Aug. 26, 1918. 922	Nov. 5, 1919. 838	April 3, 1920. 968	Oct. 5, 1919. 1,016
Live weight, in lbs.	...	...	...	April 5. 197	March 10. 223	May 19. 153	Jan. 4. 288
Last Calved ...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Days since Calving	...	...	...	22-1 18-3	20-9 15-4	24-0 17-2	10-6 9-6
Weight of Milk, 1st day	...	...	...	21-8 18-4	20-2 16-0	22-0 20-3	9-1 8-2
Weight of Milk, 2nd day	...	...	...	43-9 36-7	41-1 31-4	46-0 37-5	19-7 17-8
Total ...	...	...	...	21-95 18-35	20-55 15-7	23-0 18-75	9-85 8-9
Average ...	...	...	...	4-39 5-94	5-16 5-09	6-35 6-14	6-37 ^c 5-58
Percentage { Fat ...	...	...	...	8-57 8-90	8-44 8-75	8-81 8-94	9-01 9-06
Composition of { Solids other than Fat	...	...	...	12-96 14-84	13-60 14-44	15-16 15-08	15-38 14-64
the Milk. { Total Solids	...	...	...	0-96 1-09	1-06 0-89	1-46 1-15	0-63 0-50
Actual weight of Fat, in lbs. ...	...	...	...	19-2 21-8	21-2 17-8	29-2 23-0	12-6 10-0
Calculation of Points multiply by 20...	...	...	...	1-88 1-63	1-74 1-37	2-03 1-68	0-89 0-805
Actual weight of Solids other than Fat, in lbs.	...	...	...	7-52 6-52	6-96 5-48	8-12 6-72	3-56 3-22
Calculation of Points multiply by 4 ...	...	...	...	12-0	12-0	11-3	12-0
{ For time since Calving	...	...	...	40-3	36-3	41-8	18-8
{ For weight of Milk (lbs.)	...	...	...	41-0	39-0	52-2	22-6
Points { For weight of Fat (lbs. × 20)	...	...	...	14-0	12-4	14-8	6-8
{ For weight of Solids other than Fat	...	...	...	107-3	99-7	120-1	60-2
(lbs. × 4) ...	...	...	...	—	10-0	—	—
Total ...	...	...	...	107-3	89-7	120-1	60-2
Deductions	...	...	...	...	...	...	...
Points gained...	...	...	...	...	...	...	...
Remarks and Awards ...	...	...	...	Highly Commended.	...	1st Prize.	...

CLASS 24.—JERSEY COWS (ENGLISH OR ISLAND BRED—BORN ON OR PREVIOUS TO 1ST AUGUST, 1920)—Continued									
Number ..	...	...	...	...	350	351	352	353	
Name ..	...	...	...	...	Lady Vedus 6th	Dewberry.	Valley.	Dumfries's Fontaine.	
Born ...	...	...	...	...	Aug. 11, 1918.	April 7, 1920.	Oct. 26, 1917.	Dec. 14, 1919.	
Live weight, in lbs.	...	...	...	...	974	912	998	926	
Last Calved ...	...	...	...	...	Aug. 29.	July 10.	Oct. 2.	Aug. 8.	
Days since Calving	...	...	...	...	51	101	17	72	
Weight of Milk, 1st day	...	...	...	...	Morn	Even	Morn	Even	
Weight of Milk, 2nd day	...	...	...	...	23-1	18-1	27-9	20-7	
Total	...	...	...	...	21-6	17-0	26-4	23-9	
Average	...	...	...	...	44-7	35-1	54-3	40-3	
Percentage { Fat ...	...	...	...	...	22-35	17-55	27-15	23-15	
Composition of { Solids other than Fat	...	...	...	...	5-52	4-20	3-56	4-87	
the Milk. { Total Solids	...	...	...	...	8-84	8-55	8-84	9-13	
Actual weight of Fat, in lbs. ...	...	...	...	...	14-36	12-84	12-40	14-00	
Calculation of Points multiply by 20...	...	...	...	...	1-24	0-755	0-97	1-13	
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	24-8	15-1	19-4	22-6	
Calculation of Points multiply by 4 ...	...	...	...	...	1-98	1-50	2-40	2-12	
Points { For time since Calving	...	...	...	...	7-92	6-0	9-6	8-48	
	...	...	...	...	1-1	6-1	50-5	42-8	
	...	...	...	...	39-9	43-2	43-4	45-8	
	...	...	...	...	39-9	43-2	43-4	45-8	
Points { For weight of Fat (lbs. × 20)	...	...	...	...	13-9	15-2	18-0	15-5	
	...	...	...	...	94-8	107-7	111-9	107-3	
	...	...	...	...	94-8	107-7	111-9	107-3	
	...	...	...	...	94-8	107-7	111-9	107-3	
Remarks and Awards ...	...	...	...	...	Highly Commended.	Reserve and Highly Commended.	2nd Prize.	Highly Commended.	

CLASS 25.—JERSEY COWS—(ENGLISH OR ISLAND BRED, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK, BORN AFTER 1ST AUGUST, 1920, AND PREVIOUS TO 1ST AUGUST, 1922).

Number ...	...	...	...	...	354	356	357	358
Name ...	...	...	...	...	Danbury Prohibition	Tudy Mated.	Robert's, Star 2nd.	Remond et Flo 3rd.
Born ...	...	...	...	...	Jan. 16, 1921.	Sept. 2, 1921.	Oct. 5, 1920	Aug. 30, 1920.
Live weight, in lbs.	...	...	...	...	941	934	926	802
Last Calved ...	...	...	...	...	Sept. 15.	Aug. 24	April 10,	April 12.
Days since Calving	...	...	...	...	34	56	192	1901
Weight of Milk, 1st day	...	...	...	...	Morn	Morn	Morn	Morn
Weight of Milk, 2nd day	...	...	...	...	Even	Even	Even	Even
Total	...	...	...	...	21-0 16-9	24-2 21-9	20-8 16-3	18-8 14-8
Average	...	...	...	...	20-8 18-0	25-1 24-4	21-4 16-7	18-0 13-6
Percentage	...	...	...	...	41-8 34-9	49-3 46-3	42-2 33-0	36-8 28-4
Composition of	...	...	...	...	20-9 17-45	24-65 23-15	21-1 16-5	18-4 14-2
the Milk.	...	...	...	...	3-07 3-28	4-74 3-35	6-51 6-09	5-80 5-78
Actual weight of Fat, in lbs.	...	...	...	...	8-67 8-94	9-42 8-61	9-94 9-21	9-10 8-92
Calculation of Points multiply by 20...	...	...	...	...	11-74 12-22	14-16 11-96	16-48 15-30	14-90 14-70
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	0-645 0-575	1-175 0-775	1-39 1-00	1-06 0-82
Calculation of Points multiply by 4 ..	...	...	...	...	12-9 11-5	23-5 15-5	27-8 20-0	21-2 16-4
Points	...	...	...	...	1-81 1-57	2-33 2-00	2-10 1-53	1-67 1-27
For time since Calving	...	...	...	...	7-24 6-28	9-32 8-00	8-4 6-12	6-68 5-08
For weight of Milk (lbs.)	...	...	...	...	—	1-6	12-0	12-0
For weight of Fat (lbs. × 20)	...	...	...	...	38-4	47-8	37-6	32-6
For weight of Solids other than Fat	...	...	...	...	24-4	39-0	47-8	37-6
(lbs. × 4) ..	...	...	...	...	13-6	17-3	14-5	11-8
Total ..	...	...	...	...	76-3	105-7	111-9	94-0
Deductions ..	...	...	...	...	—	—	—	—
Points gained...	...	...	...	...	76-3	105-7	111-9	94-0
Remarks and Awards ...	...	...	...	...	Highly Commended.	2nd Prize.	1st Prize.	Highly Commended.

CLASS 25.—JERSEY COWS—(ENGLISH OR ISLAND BRED—BORN AFTER 1ST AUGUST, 1920, AND PREVIOUS TO 1ST AUGUST, 1922)—Continued.

Number ... Name ...	...	...	...	359 Symbol	361 Moss Roschod.	362 Philontha.	366 Es-sene Pride.
Born ...	...	...	...	June 3, 1921. 822	July 23, 1921. 768	Nov. 20, 1921. 829	Jan. 8, 1922. 854
Live weight, in lbs.	...	...	...	Sept. 23. 26	Sept. 6. 43	May 10. 162	May 5. 167
Last Calved ...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Days since Calving	...	...	...	14-5 14-0	19-6 14-8	18-8 14-7	18-2 17-6
Weight of Milk, 1st day	...	...	...	17-8 14-5	17-1 14-2	17-7 13-6	18-4 15-8
Weight of Milk, 2nd day	...	...	...	32-3 28-5	36-7 29-0	36-5 28-3	36-6 33-4
Total	...	...	...	16-15 14-25	18-35 14-5	18-25 14-15	18-3 16-7
Average ...	...	...	...	6-76 6-39	4-75 4-85	4-69 6-86	4-87 7-08
Percentage of Fat ...	...	...	...	9-04 8-53	8-91 8-93	9-09 8-86	9-63 8-98
Composition of { the Milk. Solids other than Fat	...	...	...	15-80 14-92	13-66 13-78	13-78 15-72	14-50 16-06
Actual weight of Fat, in lbs. ...	...	...	...	1-09 0-915	0-87 0-700	0-86 0-97	0-89 1-18
Calculation of Points multiply by 20...	...	...	...	21-8 18-3	17-4 14-0	17-2 19-4	17-8 23-6
Actual weight of Solids other than Fat, in lbs.	...	...	...	1-46 1-22	1-63 1-29	1-66 1-25	1-76 1-49
Calculation of Points multiply by 4 ...	...	...	...	5-84 4-88	6-52 5-16	6-64 5-0	7-04 5-96
Points { For time since Calving For weight of Milk (lbs.) For weight of Fat (lbs. × 20) For weight of Solids other than Fat (lbs. × 4) ...	...	...	...	— 30-4 40-1 10-7	0-3 32-9 31-4 11-7	12-0 32-4 36-6 11-6	12-0 35-0 41-4 13-0
Total ...	...	...	...	81-2	76-3	92-6	101-4
Deductions ...	...	...	...	—	—	—	—
Points gained...	...	...	...	81-2	76-3	92-6	101-4
Remarks and Awards ...	...	...	...	Highly Commended.	Highly Commended.	Highly Commended.	3rd Prize.

CLASS 26. — JERSEY HEIFERS (ENGLISH) OF ISLAND BRED. BORN ON OR AFTER 1ST AUGUST, 1922) — *Continued.*

Number ... Name ...	...	...	...	382 Martingold.	384 Helena's Lass.	385 Frostie May.	388 (Colombier Embuence.
Born ...	...	...	...	June 15, 1923. 801	April 29, 1923. 784	May 20, 1923. 735	May 12, 1923. 708
Live weight, in lbs.	...	...	...	Sept. 12. 37	Sept. 10. 39	July 5. 106	Oct. 4. 15
Last Calved ...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Days since Calving ...	...	...	...	19-0 16-0	11-2 10-2	13-3 11-8	13-3 11-8
Weight of Milk, 1st day	...	...	...	18-3 17-2	8-7 9-0	13-5 11-9	13-5 11-9
Weight of Milk, 2nd day	...	...	...	37-3 33-2	19-9 19-2	26-8 23-7	26-8 23-7
Total ...	...	...	...	18-65 16-6	9-95 9-6	13-4 11-85	13-4 11-85
Average ...	...	...	...	4-48 4-46	4-10 5-72	3-84 4-92	3-84 4-92
Percentage { Fat ...	...	...	...	9-28 9-10	9-38 9-56	9-86 9-40	9-86 9-40
Composition of { Solids other than Fat	...	...	...	13-76 15-56	13-48 15-28	13-70 14-32	13-70 14-32
the Milk. { Total Solids	...	...	...	0-84 1-07	0-40 0-55	0-515 0-585	0-515 0-585
Actual weight of Fat, in lbs. ...	...	...	...	16-8 21-4	8-0 11-0	10-3 11-7	10-3 11-7
Calculation of Points multiply by 20 ...	...	...	...	1-73 1-51	0-935 0-915	1-32 1-12	1-32 1-12
Actual weight of Solids other than Fat, in lbs.	...	...	...	6-92 6-04	3-74 3-66	5-28 4-48	5-28 4-48
Calculation of Points multiply by 4 ...	...	...	...	...	...	...	...
Points { For time since Calving For weight of Milk (lbs.) For weight of Fat (lbs. × 20) For weight of Solids other than Fat (lbs. × 4)	...	...	...	35-3	27-1	6-6	25-3
	...	...	...	38-2	22-5	19-0	22-0
	...	...	...	13-0	9-7	7-4	9-8
	...	...	...	86-5	59-3	52-6	57-1
Total ...	...	...	...	—	—	—	—
Deductions ...	...	...	...	86-5	59-3	52-6	57-1
Points gained ...	...	...	...	...	...	...	...
Remarks and Awards ...	...	...	...	3rd Prize.	...	...	...

CLASS 26.—JERSEY HEIFERS (ENGLISH OR ISLAND BRED. BORN ON OR AFTER 1ST AUGUST, 1922).—Continued.

Number Name	...	...	...	...	...	...	389 Benedicte.	391 Last of the Dams, and
Born	...	...	...	...	...	...	Mar. 19, 1923. 776	June 5, 1923. 779
Live weight, in lbs.	...	...	...	...	...	...	Sept. 26. 23	June 22. 119
Last Calved	...	...	...	...	...	...
Days since Calving	...	...	...	...	...	...
Weight of Milk, 1st day	...	...	...	...	...	...	Morn	Even
Weight of Milk, 2nd day	...	...	...	...	...	...	9-1	15-4
Total	...	...	...	...	...	...	8-9	11-4
Average	...	...	...	...	...	...	7-5	12-5
Percentage	...	...	...	...	...	...	18-5	23-9
Composition of	...	...	...	...	...	...	9-25	15-2
the Milk.	...	...	...	...	...	...	8-2	11-95
Actual weight of Fat, in lbs.	...	...	...	...	...	...	6-60	4-33
							9-33	4-81
Calculation of Points multiply by 20...	...	...	...	...	...	...	16-26	9-33
							10-01	9-43
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	...	13-66	14-24
							0-66	0-575
Calculation of Points multiply by 4	...	...	...	...	...	...	12-2	13-2
							15-4	11-5
Points	...	...	...	...	...	...	0-895	1-41
							3-58	5-64
For time since Calving	...	...	...	...	...	...	7-9	7-9
							17-5	27-2
For weight of Milk (lbs.)	...	...	...	...	...	...	27-6	24-7
							6-9	10-1
For weight of Fat (lbs. × 20)	...	...	...	...	...	...	52-0	69-9
							—	—
For weight of Solids other than Fat	...	...	...	...	...	...	52-0	69-9
							—	—
(lbs. × 4)	...	...	...	...	...	...	—	—
Total	...	...	...	...	...	...	—	—
Deductions	...	...	...	...	...	...	—	—
Points gained	...	...	...	...	...	...	—	—
Remarks and Awards	...	...	...	...	...	...	—	—
							Highly Commended.	

CLASS 27.—KERRY COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK).

Number ...	...	...	...	394	396	397	398
Name ...	...	...	...	Buckland Peace 2nd	Coquet Gipsy	Valencia Eleven 3rd	Wadlands Fanny
Born ...	...	...	...	May 28, 1921.	May 12, 1917.	Mar. 14, 1916.	Sept. 21, 1920.
Live weight, in lbs.	...	...	...	934	1,056	955	965
Last Calved ...	...	...	...	Sept. 10.	Sept. 9.	May 6.	Oct. 4.
Days since Calving	...	...	...	39	40	166	15
Weight of Milk, 1st day	...	...	...	Morn	Morn	Morn	Morn
Weight of Milk, 2nd day	...	...	...	Even	Even	Even	Even
Total	...	...	...	29-0	36-0	20-7	21-3
Average	...	...	...	31-3	34-4	22-3	25-1
Percentage	...	...	...	60-3	70-4	43-0	49-2
Composition of	...	...	...	30-15	35-2	21-5	24-6
the Milk.	...	...	...	4-05	2-66	3-38	4-22
Actual weight of Fat, in lbs.	...	...	...	9-17	9-42	9-40	9-18
Calculation of Points multiply by 20...	...	...	...	13-22	15-10	12-08	13-54
Actual weight of Solids other than Fat, in lbs.	...	...	...	1-22	1-62	0-94	1-04
Calculation of Points multiply by 4 ...	...	...	...	24-4	32-4	18-8	25-4
For time since Calving	...	...	...	2-76	2-40	3-33	2-75
For weight of Milk (lbs.)	...	...	...	11-04	9-6	13-32	11-0
For weight of Fat (lbs. × 20)	...	...	...	56-8	65-1	38-8	45-8
For weight of Solids other than Fat	...	...	...	56-8	44-2	30-0	36-0
(lbs. × 4) ...	...	...	...	20-6	24-3	14-4	16-7
Total ...	...	...	...	134-2	133-6	95-2	98-5
Deductions	...	...	...	—	10-0	—	—
Points gained...	...	...	...	134-2	123-6	95-2	98-5
Remarks and Awards ...	...	...	...	1st Prize. National Milk Cup. Kerry Cattle Society's Cup.	2nd Prize. Reserve Kerry Cattle Society's Cup.	Highly Commended.	Reserve and Highly Commended.

CLASS 27.—KERRY COWS—Continued.

Number ... Name ...	...	...	...	...	399 Vaddy Mourmomore.	405 Hattingley High Kick	406 Buckhurst Effin.
Born ...	...	...	...	...	April 11, 1918. 950	19:9. 912	Jan, 1915. 847
Live weight, in lbs.	...	...	...	...	Oct. 3. 16	May 19. 153	Sept. 1. 48
Last Calved ...	...	...	...	...	Morn	Morn	Morn
Days since Calving	...	...	...	...	Even	Even	Even
Weight of Milk, 1st day	...	...	...	...	18:1	18:7	25:9
Weight of Milk, 2nd day	...	...	...	...	18:7	19:4	21:4
Total	...	...	...	...	36:8	38:1	27:7
Average	...	...	...	...	36:4	31:3	21:8
Percentage	...	...	...	...	18:4	19:05	53:6
Composition of the Milk.	...	...	...	...	18:2	15:65	43:2
Actual weight of Fat, in lbs.	...	...	...	...	4:99	3:96	26:8
Calculation of Points multiply by 20...	...	...	...	...	9:01	8:92	4:32
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	14:00	12:88	9:10
Calculation of Points multiply by 4 ...	...	...	...	...	0:92	0:755	9:02
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	18:4	15:1	12:38
Calculation of Points multiply by 4 ...	...	...	...	...	1:66	1:39	13:34
For time since Calving	...	...	...	...	6:64	6:8	0:88
For weight of Milk (lbs.)	...	...	...	...	36:6	34:7	0:935
For weight of Fat (lbs. × 20)	...	...	...	...	48:0	28:7	17:6
For weight of Solids other than Fat	...	...	...	...	13:3	12:4	7:8
(lbs. × 4) ...	...	...	...	...	97:9	87:1	2:44
Total	...	...	...	...	97:9	87:1	9:76
Deductions	...	...	...	...	97:9	87:1	0:8
Points gained...	...	...	...	...	97:9	87:1	48:4
Remarks and Awards ...	...	...	...	...	Highly Commended.	Highly Commended.	36:3
	...	...	...	...	Highly Commended.	Highly Commended.	17:6
	...	...	...	...	Highly Commended.	Highly Commended.	103:1
	...	...	...	...	Highly Commended.	Highly Commended.	103:1
	...	...	...	...	Highly Commended.	Highly Commended.	3rd Prize.

CLASS 28.—KERRY HEIFERS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1922).

Number ...	...	...	...	...	408	413	414
Name ...	...	...	...	...	Buckland Emma.	Hattingley Beauty.	Castledough Missie.
Born ...	...	...	...	...	April 24, 1923.	Jan. 21, 1923.	May 1, 1923
Live weight, in lbs	...	...	...	...	796	736	678
Last Calved ...	...	...	...	...	Aug. 18.	June 19.	Aug. 16.
Days since Calving	...	...	...	...	62	122	64
Weight of Milk, 1st day	...	...	...	...	Morn	Morn	Morn
Weight of Milk, 2nd day	...	...	...	...	Even	Even	Even
Total	...	...	...	...	15-8	14-3	15-8
Average	...	...	...	...	14-9	13-3	12-4
Percentage { Fat ...	...	...	...	...	16-4	15-0	16-0
Composition of { Solids other than Fat	...	...	...	...	32-2	29-3	31-8
the Milk. { Total Solids	...	...	...	...	16-1	14-65	15-9
Actual weight of Fat, in lbs. ...	...	...	...	...	3-10	3-42	4-50
Calculation of Points multiply by 20...	...	...	...	...	9-48	9-52	9-72
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	12-68	12-94	14-22
Calculation of Points multiply by 4 ...	...	...	...	...	0-50	0-50	0-72
Points { For time since Calving	...	...	...	...	10-0	10-0	14-4
{ For weight of Milk (lbs.)	...	...	...	...	1-53	1-40	1-545
{ For weight of Fat (lbs. × 20)	...	...	...	...	6-12	5-6	6-18
{ For weight of Solids other than Fat	...	...	...	...	2-2	8-2	2-4
{ (lbs. × 4) ...	...	...	...	...	30-8	27-9	28-9
Total ...	...	...	...	...	24-8	21-9	26-9
Deductions ...	...	...	...	...	11-4	10-6	11-1
Points gained...	...	...	...	...	69-2	68-6	69-3
Remarks and Awards ...	...	...	...	...	69-2	68-6	69-3
	...	...	...	...	2nd Prize.	3rd Prize.	1st Prize.

CLASS 29. — DEXTER COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK).

Number Name	...	...	...	...	...	418 Barrow Rec 6th.	420 Bridgesmaid	421 Just Pommel of Hookstille
Born	...	...	...	...	...	June 23, 1921. 674	1913. 794	Mar. 15, 1919. 800
Live weight, in lbs.	...	...	...	...	...	May 23. 140	May 5. 167	Sept. 10. 39
Last Calved	...	...	...	...	...	Morn	Morn	Morn
Days since Calving	...	...	...	...	...	Even	Even	Even
Weight of Milk, 1st day	...	...	...	...	...	14-3	16-3	25-5
Weight of Milk, 2nd day	...	...	...	...	...	14-9	13-8	22-6
Total	...	...	...	...	...	29-2	17-9	28-3
Average	...	...	...	...	...	23-9	34-2	21-8
Percentage	...	...	...	...	...	14-6	27-7	53-8
Composition of the Milk.	...	...	...	...	...	11-95	17-1	26-9
Actual weight of Fat, in lbs.	...	...	...	...	...	4-12	4-30	2-89
Calculation of Points multiply by 20...	...	...	...	...	...	4-42	4-29	3-30
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	8-84	8-80	8-61
Calculation of Points multiply by 4	...	...	...	...	...	8-62	8-10	8-70
Actual weight of Solids other than Fat	...	...	...	...	...	12-96	13-46	11-50
Calculation of Points multiply by 4	...	...	...	...	...	0-60	0-735	0-78
For time since Calving	...	...	...	...	...	10-6	14-7	15-6
For weight of Milk (lbs.)	...	...	...	...	...	1-29	1-51	2-32
For weight of Fat (lbs. × 20)	...	...	...	...	...	5-16	6-04	9-28
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	...	4-12	5-08	7-76
Total	...	...	...	...	...	10-9	12-0	—
Deductions	...	...	...	...	...	26-6	31-0	49-1
Points gained...	...	...	...	...	...	22-6	26-6	30-3
...	...	...	...	...	...	9-3	11-1	17-0
...	...	...	...	...	...	69-4	80-7	96-4
...	...	...	...	...	...	—	—	10-0
...	...	...	...	...	...	69-4	80-7	86-4
Remarks and Awards	...	...	...	...	...	2nd Prize. Reserve Nutt Cup.	1st Prize. Nutt Cup.	—

CLASS 30.—DEXTER HEIFERS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1922).

Number ...	...	...	...	...	...	423
Name ...	...	...	...	...	...	BARROW Biscuit 2nd.
Born ...	...	...	...	...	...	May 18, 1923.
Live weight, in lbs.	...	...	...	...	...	544
Last Calved ...	...	...	...	...	...	Oct. 6.
Days since Calving	...	...	...	...	...	13
Weight of Milk, 1st day	...	...	...	...	...	Morn Even
Weight of Milk, 2nd day	...	...	...	...	...	10-9 10-8
Total	...	...	...	...	...	11-4 10-7
Average	...	...	...	...	...	22-3 21-5
Percentage	...	...	...	...	...	11-15 10-75
Composition of { Fat ...	...	...	...	...	...	4-92 5-52
the Milk. { Solids other than Fat	...	...	...	...	...	10-24 10-20
Total Solids	...	...	...	...	...	15-16 15-72
Actual weight of Fat, in lbs.	...	...	...	...	...	0-55 0-595
Calculation of Points multiply by 20...	...	...	...	...	...	11-0 11-9
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	1-14 1-10
Calculation of Points multiply by 4 ...	...	...	...	...	...	4-36 4-4
For time since Calving	...	...	...	...	...	—
For weight of Milk (lbs.)	...	...	...	...	...	21-9
For weight of Fat (lbs. × 20)	...	...	...	...	...	22-9
For weight of Solids other than Fat	...	...	...	...	...	9-0
(lbs. × 4)	...	...	...	...	...	53-8
Total	...	...	...	...	...	—
Deductions	...	...	...	...	...	53-8
Points gained...	...	...	...	...	...	—
Remarks and Awards	...	...	...	...	...	1st Prize

CLASS 31.—COWS OF ANY BREED—MILKED THREE TIMES DAILY.

Number ... Name ...	... ... ...	... ... ...	... ... ...	426 Teeling Sky 8th	427 Baswick Bloom		428 Earlourne Octavia.
Born	...	...	...	Jan 23, 1916.	April 13, 1918.		1918.
Live weight, in lbs.	...	...	...	1,558	1,296	1,434	1,434
Last Calved	...	...	...	Sept. 23	Sept. 26.	Sept. 7.	Sept. 7.
Days since Calving	...	...	...	26	23	42	42
Weight of Milk, 1st day	...	...	...	Morn. Aftn. Even.	Morn. Aftn. Even.	Morn. Aftn. Even.	Morn. Aftn. Even.
Weight of Milk, 2nd day	...	...	...	21-3 23-6 20-4	32-5 25-3 24-1	22-1 29-6 20-7	22-1 29-6 20-7
Total	...	...	...	22-7 26-2 18-2	28-0 22-6 20-7	26-3 24-0 24-0	26-3 24-0 24-0
Average	...	...	...	44-0 49-8 38-6	60-5 47-9 44-8	48-7 54-5 44-7	48-7 54-5 44-7
...	...	...	...	22-0 24-9 19-3	30-25 23-95 22-4	24-35 27-25 22-35	24-35 27-25 22-35
Percentage { Fat ...	...	...	...	2-71 4-16 5-25	2-05 2-78 4-13	2-93 4-47 4-72	2-93 4-47 4-72
Composition of { Solids other than Fat	...	...	...	9-31 8-84 8-53	8-93 8-80 8-91	9-45 9-13 9-10	9-45 9-13 9-10
the Milk. { Total Solids	...	...	...	12-02 13-00 13-78	10-98 11-58 13-04	12-38 13-90 13-82	12-38 13-90 13-82
Actual weight of Fat, in lbs. ...	...	...	...	0-59 1-03 1-01	0-62 0-67 0-93	0-71 1-22 1-05	0-71 1-22 1-05
Calculation of Points multiply by 20...	...	...	...	11-80 20-60 20-20	12-40 13-40 18-60	11-20 24-40 21-00	11-20 24-40 21-00
Actual weight of Solids other than Fat, in lbs.	...	...	...	2-05 2-20 1-64	2-70 2-11 2-00	2-30 2-57 2-03	2-30 2-57 2-03
Calculation of Points multiply by 4 ...	...	...	...	8-20 8-80 6-56	10-80 8-44 8-00	9-20 10-28 8-12	9-20 10-28 8-12
Points { For time since Calving For weight of Milk (lbs.) For weight of Fat (lbs. × 20) For weight of Solids other than Fat (lbs. × 4) ...	...	...	...	66-2	76-6	0-2	0-2
	...	...	...	52-6	44-4	74-0	74-0
	...	...	...	23-56	27-24	59-60	59-60
	...	...	...	142-4	148-2	27-60	27-60
	...	...	...	10-0	20-0	161-4	161-4
Remarks and Awards ...	...	...	...	132-4	128-2	10-0	10-0
	...	...	...	3rd Prize.	Reserve and Highly Commended.	151-4	151-4
	...	...	...			2nd Prize	2nd Prize

CLASS 31.—COWS OF ANY BREED—MILKED THREE TIMES DAILY.—Continued.

Number ...	...	...	...	...	...	431	Teeling Ivory 8th.		...	432	Pittsea Spider.
Name ...	...	...	...	...	...	...	...		...	...	...
Born	...	...	...	...	...	...	May 16, 1915.		...	...	...
Live weight, in lbs.	...	...	...	...	...	...	1,312		1,418	...	...
Last Calved	...	...	...	...	...	...	Sept. 19.		Sept. 25,	...	...
Days since Calving	...	...	...	...	...	...	30		24	...	...
Weight of Milk, 1st day	...	...	...	...	...	Morn.	Aftn.	Even.	Morn.	Aftn.	Even.
Weight of Milk, 2nd day	...	...	...	...	...	34.3	32.5	28.4	22.1	19.4	17.2
Total	...	...	...	...	...	33.7	32.1	27.8	20.5	19.0	13.3
Average ...	...	...	...	...	...	68.0	64.6	56.2	42.6	38.4	30.5
Percentage of Fat ...	...	...	...	...	...	34.0	32.3	28.1	21.3	19.2	15.25
Composition of the Milk.	...	...	...	...	...	2.47	3.69	3.45	2.26	38.4	3.91
Total Solids	...	...	...	...	...	8.51	8.65	8.61	8.54	8.68	8.67
Actual weight of Fat, in lbs.	...	...	...	...	...	10.98	12.34	12.06	10.80	12.16	12.58
Calculation of Points multiply by 20...	...	...	...	...	...	0.84	1.19	0.97	0.48	0.67	0.60
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	16.80	23.80	19.40	9.60	13.40	12.0
Calculation of Points multiply by 4 ...	...	...	...	...	...	2.89	2.79	2.41	1.82	1.66	1.32
For time since Calving	...	...	...	...	...	11.56	11.16	9.64	7.28	6.64	5.28
For weight of Milk (lbs.)	...	...	...	...	...	...	94.4	...	...	55.8	...
For weight of Fat (lbs. X 20)	...	...	...	...	...	...	60.0	...	...	35.0	...
For weight of Solids other than Fat (lbs. X 4)	...	...	...	...	...	...	32.4	...	...	19.20	...
Total	...	...	...	...	...	...	186.8	...	...	110.0	...
Deductions	...	...	...	...	...	...	10.0	...	...	10.0	...
Points gained...	...	...	...	...	...	...	176.8	...	...	100.0	...
Remarks and Awards	...	...	...	...	...	...	1st Prize.				

THE MILKING TRIALS FOR GOATS, 1925.

By THOS. W. PALMER.

THE goats competing in the Milking Competitions were classified the same as at the 1924 exhibition, *i.e.* She Goats qualified as "Star" or "Q Star" milkers, and She Goats not eligible for previous class. To compete in the Star or Q Star Class, a goat must have obtained a minimum number of points in a Milking Competition, the minimum being 15 for a Star, and 18 or 20 for a Q Star. In the Star Class, points are given for quantity of milk and lactation, whilst the competition extends for three milkings over a period of 36 hours. In the Q Star Class, where the minimum is 18 points, these are obtained for Quantity of Milk, Butter Fat, and Lactation, whilst where the minimum is 20 points, Quantity of Milk, Butter Fat, Solids other than Fat, and Lactation count. In the two latter competitions, there are two milkings over a period of 24 hours, and the percentage of Butter Fat must not be below 4 per cent. at both milkings.

Entries.—These show a considerable reduction when compared with the previous year, the total being 18, *i.e.* 11 in the Star class and 7 in the Non-Star class, as against a total of 33 at the 1924 Show, 16 being entered in the Star class and 17 in the Non-Star class.

Class 37. Star or Q Star Milkers.—The outstanding goat was Mrs. Arthur Abbey's "Didgemere Dream" Q*. This goat kidded for the first time on May 19th, and her average yield of milk at the Show was 13.35 lbs., which is a record for any Dairy Show, the previous highest yield being at the 1922 Show, when "Didgemere Dulcie" Q*Q* gave 12.6 lbs. of milk, and it is worthy of note that these goats are sisters, their sire being Champion† "Prophet of Bashley," and dam "Withdean Countess" Q*. "Didgemere Dream's" butter fat was 3.48 per cent., and 3.6 per cent. The second prizewinner, Mrs. Morcom's "Leazes Fortitude" ** also put up a good record, her average yield being 11.65 lbs., butter fat 3.33 per cent. and 3.64 per cent., whilst she kidded on March 12th. At the 1924 Show, this goat was third in the Star Class. She was not entered at the 1923 exhibition, but at the Show of 1922 she was first in the Non-Star class, so has proved herself a consistent milker. The third prize was awarded to Mrs. Abbey's "Didgemere Ding" *Q*Q*Q*, who kidded for the first time on March 3rd, and whose average yield was 9.45 lbs. with butter fat 4.77 per cent., and 4.49 per cent. This goat qualified for the Q Star at this Show, having previously qualified for the Star.

Class 38. Goats not eligible for Class 37.—There were no outstanding yields in this class, the best being that of the first prizewinner "Didgemere Dove," belonging to Mrs. Abbey. This was another first kidder, having kidded on March 2nd. Her yield was 8.25 lbs., butter fat 4.25 per cent., and 3.98 per cent. Had the latter been 4 per cent. (a difference of 0.02 per cent.) she would have qualified for the Q Star. The second on the list—"Play of Bashley"—was a goatling in milk. She kidded on August 3rd, her yield being 8.2 lbs., with butter fat 5 per cent., and 4.85 per cent. The third prizewinner was Miss Harrison's "Myrtle" who, kidding on May 30th, gave a yield of 7.7 lbs., with 4.21 per cent., and 3.90 per cent. butter fat.

I now take the goats as classified for inspection, the latter classes being exactly the same as at the 1924 Show :—

Class 39. Toggenburg.—Five entries, but not one animal entered for the Milking Trials.

Class 40. British Toggenburg.—Cancelled.

Class 41. British Alpine.—Six entries, four of whom were also entered in the Milking Competition. Mrs. Browell's "Pogo of Bashley" Q* was Reserve in the Milking Class for Star Goats, with a yield of 7.95 lbs., and total points 23.83. This goat obtained third prize in the Inspection Class. Mrs. Abbey's "Didgemere Dusky" *Q*Q* came next in order of points; yield 8.7 lbs., total points 23.34, and obtained a High Commendation. The other two animals also obtained High Commendations, Mrs. Abbey's "Didgemere Delilah" *Q*Q*Q*, yield 8.65, points 22.99, also securing second prize in Inspection, and the same exhibitor's "Didgemere Dawdler" *Q*Q*Q*, yield 7.1 lbs., points 20.1, this goat being first by Inspection.

Class 42. She Goats, Saanen.—Two entries for Inspection, but neither of them were entered for milking.

Class 43. Anglo-Nubian.—There were five entries for Inspection, three of whom were also entered for milking, but one was absent. Of the two competing, Miss Pelly's "Nash Bellona" Q*Q* was first in the class by Inspection, and also gained the Pomeroy Cup for the highest number of points gained by an Anglo-Nubian goat in the Milking Competition. Her yield was 5.55 lbs., total points 18.93.

Class 44. Any other Variety.—Eleven animals were entered for Inspection, and nine of these were also entered for Milking—or absentee. Mrs. Abbey's "Didgemere Dream" Q** was very successful. Not only did she secure premier honours in milking, with a yield of 13.35 lbs., but she was first in her class for Inspection, and when the

goats were re-judged for the Challenge Certificate, she was at the top. It may be of interest to place on record her successes at this Show :— First prize in Class 44 (Inspection), winner of the Challenge Certificate for the best goat over two years, Challenge Cup for best goat over two years, First prize in Class 37 (Milking), winner of the Dual Purpose Challenge Certificate, Baroness Burdett Coutts' Challenge Cup, Tremedda Selene Challenge Cup and Dewar Challenge Trophy, whilst she also helped to win the Dewar Cup and the Riding Cup. The second prizewinner, Mrs. Morcom's "Leazes Fortitude" **, yielded 11·65 lbs. milk, and she was also second by Inspection, whilst she was Reserve for the special prizes, with the exception of the Challenge Certificate for the best goat over two years, Challenge Cup for best goat over two years, Dewar Cup and Riding Cup. The third prizewinner was Mrs. Abbey's "Didgemere Ding" *Q*Q*Q*, with a yield of 9·45 lbs. This goat also obtained third prize in the Inspection Class. The first prize-winner in Class 38, Mrs. Abbey's "Didgemere Dove," was also entered in this class, her yield being 8·25 lbs., as also was the second prize-winner, Mrs. Browell's "Play of Bashley," whose yield was 8·2 lbs.

No goat was deficient in butter fat, and this is the third year in succession that all the samples taken from the goats have been over the standard. The analysis of the milk showed the following results :— Six samples were over 3 per cent. and under 4 per cent., 11 samples were over 4 per cent. and under 5 per cent., eight samples were from 5 per cent. and under 6 per cent., four samples were over 6 per cent. and under 7 per cent., whilst three samples were over 7 per cent. The lowest percentage of butter fat was 3·33, and the highest percentage 7·65.

I append the usual tabulated statement (No. 1), showing the goats entered for both Inspection and Milking, whilst Table No. 2 has been brought up to date.

TABLE I.

Class.	Description.	Number in Class		Average Live Weight	Average Yield of Milk.	Highest Yield.	Lowest Yield.	Average period of lactation.	Average Fat.	Average Solid, not Fat.	Number of Animals below Standard for Fat.		Average points Gained.
		Entered.	Com- peting.								a.m.	p.m.	
39	Toggenburg ...	—	—	—	—	—	—	—	—	—	—	—	—
40	British Toggenburg ...	—	—	—	—	—	—	—	—	—	—	—	—
41	British Alpine ...	4	4	172	8.1	8.65	7.1	242	5.11	8.95	—	—	22.56
42	Saanen ...	—	—	—	—	—	—	—	—	—	—	—	—
43	Anglo-Nubian ...	3	2	156	5.2	5.55	4.85	198	7.18	10.05	—	—	17.27
44	Any other variety ...	9	8	145	8.05	13.35	3.85	187	4.84	8.82	—	—	20.43

TABLE II.

Description of Class.	Year of Show.	No. of Animals Competing.	Average live weight of each Animal.	Average period of Lactation.	Average weight of Milk.		Average weight of Milk per day.	Highest Yield	Lowest Yield	Percentages.		
										Fat.	Solids.	
					a.m.	p.m.						
Star Milkers	1919	6	lbs. —	days. 261	3.6	3.1	6.7	10.8	4.5	a.m. 4.13	a.m. 8.89	p.m. 9.02
Star or Q Star Milkers	1920	7	130	219	3.9	3.2	7.1	9.0	4.9	4.61	9.02	9.17
"	1921	16	145	192	3.7	3.1	6.8	11.3	4.1	5.64	9.12	9.27
"	1922	14	144	190	4.4	3.6	7.0	12.6	5.6	4.60	9.07	9.19
"	1923	6	142	188	4.5	3.5	8.0	10.2	6.6	4.31	9.22	9.21
"	1924	12	149	200	4.5	3.3	7.8	11.25	4.65	4.81	8.78	8.98
"	1925	9	152	218	4.8	3.8	8.6	13.35	4.85	4.95	8.99	9.10
Not eligible as Star Milkers	1919	15	—	220	2.1	2.0	4.1	6.8	0.7	5.82	9.74	9.78
"	1920	20	113	196	2.6	2.2	4.8	8.7	1.0	5.07	9.30	9.28
"	1921	14	123	145	3.3	2.8	6.1	9.4	2.9	5.10	8.75	8.88
"	1922	21	131	188	3.2	2.9	6.1	8.5	3.6	4.41	8.98	9.05
"	1923	5	127	147	3.9	2.9	6.8	8.5	5.1	3.96	8.93	8.99
"	1924	13	138	182	4.8	3.1	7.9	9.8	4.0	4.88	8.75	8.88
"	1925	7	131	180	3.4	2.8	6.2	8.25	3.85	4.86	9.08	8.95

CLASS 37.—SHE GOATS (QUALIFIED AS "STAIR OR 'Q' STEAR MILKERS")

Number ...	...	...	...	...	...	476	478	479	480
Name ...	...	...	...	...	...	Pogo of Bushnev.	Bidgeene Dawdler.	Dudgeene Delah.	Dudgeene Dusav.
Born ...	...	...	...	...	...	Feb. 21, 1922.	June 1, 1921.	Nov. 19, 1922.	May 6, 1921.
Live weight, in lbs.	...	...	...	...	...	180	176	156	176
Last Kided ...	...	...	...	...	...	Feb. 19.	Jan. 23.	Feb. 24.	Mar. 14.
Days since Kidding	...	...	...	...	...	242	269	237	219
Weight of Milk, 1st day	...	...	...	...	...	Morn	Morn	Morn	Morn
Weight of Milk, 2nd day	...	...	...	...	...	Even	Even	Even	Even
Total	...	...	...	...	...	4-9	4-3	5-3	4-6
Average	...	...	...	...	...	4-1	3-9	4-7	4-8
Percentage	...	...	...	...	...	9-0	8-2	10-0	9-4
Composition of the Milk.	...	...	...	...	...	4-5	4-1	5-0	4-7
Actual weight of Fat, in lbs.	...	...	...	...	...	5-75	4-18	4-67	4-86
Calculation of Points multiply by 20...	...	...	...	...	...	8-89	9-08	8-87	8-86
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	14-64	13-26	13-54	13-72
Calculation of Points multiply by 4	...	...	...	...	...	0-26	0-17	0-23	0-23
Points	...	...	...	...	...	5-2	3-4	4-6	4-6
For time since Kidding	...	...	...	...	...	0-40	0-37	0-44	0-42
For weight of Milk (lbs.)	...	...	...	...	...	1-6	1-48	1-76	1-68
For weight of Fat (lbs. × 20)	...	...	...	...	...	3-4	3-8	3-3	3-0
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	...	7-95	7-1	8-65	8-7
Total	...	...	...	...	...	9-6	6-6	8-0	8-6
Deductions	...	...	...	...	...	2-88	2-6	3-04	3-04
Points gained...	...	...	...	...	...	23-83	20-1	22-99	23-34
Remarks and Awards	...	...	...	...	...	23-83	20-1	22-99	23-34
	...	...	...	...	...	Reserve.	Highly Commended.	Highly Commended.	Highly Commended.

CLASS 37.—SHE GOATS (QUALIFIED AS "STAR OR 'Q' STAR MILKERS")—Continued.

Number ...	...	...	...	486	487	488	494
Name ...	...	...	...	Nash Bellona.	Theydon Belladonna.	Biddemere Dream.	Biddemere Dine.
Born ...	...	...	...	Mar. 25, 1920.	Sept. 15, 1922.	Feb. 17, 1923.	Feb. 9, 1923.
Live weight, in lbs.	...	...	...	175	138	166	151
Last Kided ...	...	...	...	Feb. 24.	May 14.	May 19.	Mar. 3.
Days since Kidding ...	...	...	...	237	158	153	230
Weight of Milk, 1st day	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	3-1 2-4	2-6 2-1	7-9 5-9	5-6 4-3
Total	...	...	...	3-2 2-4	2-8 2-2	7-3 5-6	5-1 3-9
Average ...	...	...	...	6-3 4-8	5-4 4-3	15-2 11-5	10-7 8-2
Percentage { Fat ...	...	...	...	3-15 2-4	2-7 2-15	7-6 5-75	5-35 4-1
Composition of { Solids other than Fat	...	...	...	6-65 7-65	6-83 7-59	3-48 3-60	4-77 4-49
the Milk. { Total Solids	...	...	...	10-03 10-25	9-83 10-11	8-18 8-20	8-59 8-63
Actual weight of Fat, in lbs. ...	...	...	...	16-68 17-90	16-66 17-70	11-66 11-80	13-36 13-12
Calculation of Points multiply by 20...	...	...	...	0-21 0-18	0-18 0-16	0-265 0-20	0-26 0-18
Actual weight of Solids other than Fat, in lbs	...	...	...	4-2 3-6	3-6 3-2	5-3 4-0	5-2 3-6
Calculation of Points multiply by 4 ...	...	...	...	0-32 0-25	0-27 0-22	0-62 0-47	0-46 0-35
Points { For time since Kidding	...	...	...	1-28 1-0	1-08 0-88	2-48 1-88	1-84 1-4
{ For weight of Milk (lbs.)	...	...	...	3-3	2-0	1-9	3-2
{ For weight of Fat (lbs. x 20)	...	...	...	5-55	4-85	13-35	9-45
{ For weight of Solids other than Fat	...	...	...	7-8	6-8	9-3	8-8
(lbs. x 4) ...	...	...	...	2 28	1-96	4-36	3-24
Total ...	...	...	...	18-93	15-61	28-91	24-69
Deductions ...	...	...	...	—	—	—	—
Points gained...	...	...	...	18-93	15-61	28-91	24-69
Remarks and Awards ...	...	...	...	Pomeroy Cup.		1st Prize, Baroness Burdett-Coutts Cup, Tremella Selous Cup, Dewar Trophy.	3rd Prize.

CLASS 38 — SHE GOATS (NOT ELIGIBLE FOR CLASS #7).

Number	...	...	...	...	471	472	491	495
Name	...	...	...	...	Snowey of Wedd.	Myrtle.	Play of Bashley.	Diddgers Dove.
Born	...	...	...	...	Mar. 31, 1921.	1918.	April 25, 1924.	Feb 17, 1923.
Live weight, in lbs	...	...	...	...	107	104	149	150
Last Kiddled	...	...	...	...	Mar. 3.	May 30.	Aug. 3.	Mar. 2.
Days since Kidding	...	...	...	...	230	142	77	231
Weight of Milk, 1st day	...	...	...	...	Morn Even	Morn Even	Morn Even	Morn Even
Weight of Milk, 2nd day	...	...	...	...	3-4 2-6	3-3	4-8 3-7	4-6 3-6
Total	...	...	...	...	3-2 2-3	4-4 3-6	4-4 3-5	4-6 3-7
Average	...	...	...	...	6-6 4-9	8-5 6-9	9-2 7-2	9-2 7-3
Percentage	...	...	...	...	3-3 2-45	4-25 3-45	4-6 3-6	4-6 3-65
Composition of the Milk.	...	...	...	...	4-23 5-29	4-21 3-90	5-00 4-85	4-25 3-98
Actual weight of Fat, in lbs.	...	...	...	...	9-43 9-35	8-85 8-56	8-94 9-03	8-47 8-16
Calculation of Points multiply by 20...	...	...	...	...	13-66 14-64	13-06 12-46	13-94 13-88	12-72 12-14
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	0-14 0-13	0-18 0-135	0-23 0-175	0-2 0-15
Calculation of Points multiply by 4	...	...	...	...	2-8 2-6	3-6 2-7	4-6 3-5	4-0 3-0
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	0-31 0-23	0-38 0-30	0-41 0-33	0-39 0-30
Calculation of Points multiply by 4	...	...	...	...	1-24 0-92	1-52 1-2	1-64 1-32	1-56 1-2
For time since Kidding	...	...	...	...	3-2	1-7	0-6	3-2
For weight of Milk (lbs.)	...	...	...	...	5-75	7-7	8-2	8-25
For weight of Fat (lbs. × 20)	...	...	...	...	5-4	6-3	8-1	7-0
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	2-16	2-72	2-96	2-76
Total	...	...	...	...	16-51	18-42	19-86	21-21
Deductions	...	...	...	...	—	—	—	—
Points gained...	...	...	...	...	16-51	18-42	19-86	21-21
Remarks and Awards	...	...	...	...	Reserve.	3rd Prize.	2nd Prize.	1st Prize.

CLASS 38.—SHE GOATS (NOT ELIGIBLE FOR CLASS 37)—Continued.

Number ... Name ...	...	...	...	...	406 Coquette.	497 Nichette.	497B Cornish Guinevere.
Born ...	...	...	...	...	May 1, 1922. 159	1921. 125	Mar. 22, 1923. 121
Live weight, in lbs ...	...	...	...	...	Mar. 30. 203	Feb. 17. 244	June 4. 137
Last Kiddled ...	...	...	...	...	Morn Even	Morn Even	Morn Even
Days since Kidding ...	...	...	...	...	2-1 1-9	2-2 1-8	3-1 2-6
Weight of Milk, 1st day ...	...	...	...	...	2-1 2-0	1-9 1-8	2-9 2-5
Weight of Milk, 2nd day ...	...	...	...	...	4-2 3-9	4-1 3-6	6-0 5-1
Total ...	...	...	...	...	2-1 1-95	2-05 1-8	3-0 2-55
Average ...	...	...	...	...	5-01 6-47	5-59 7-24	5-76 5-94
Percentage Composition of the Milk.	Fat ...	...	...	...	9-13 9-05	9-45 9-46	9-28 9-06
Actual weight of Fat, in lbs. ...	Solids other than Fat	...	...	...	14-14 15-52	15-04 16-70	15-04 15-00
Calculation of Points multiply by 20...	Total Solids	...	...	...	0-11 0-13	0-11 0-13	0-17 0-15
Actual weight of Solids other than Fat, in lbs.	Fat ...	...	...	...	2-2 2-6	2-2 2-6	3-4 3-0
Calculation of Points multiply by 4 ...	Solids other than Fat	...	...	...	0-19 0-18	0-19 0-17	0-28 0-23
Points	For time since Kidding	...	...	...	0-76 0-72	0-76 0-68	1-12 0-92
For weight of Milk (lbs.) ...	For weight of Fat (lbs. × 20)	...	...	...	2-7	3-4	1-6
For weight of Solids other than Fat	(lbs. × 4) ...	...	...	...	4-05	3-85	5-55
Total ...	Total ...	...	...	...	4-8	4-8	6-4
Deductions	Deductions	...	...	...	1-48	1-44	2-04
Points gained...	Points gained...	...	...	...	13-03	13-49	15-59
Remarks and Awards ...	...	...	...	...	13-03	13-49	15-59

THE DAIRY SHOW BUTTER TESTS OF 1925.

By R. H. EVANS, B.Sc.

THE Prizes in the Butter Tests were awarded according to the following scale of points :—

One point for every ounce of butter ; one point for every completed 10 days since calving (calculated to the first day of the Show), deducting the first 40 days. Maximum allowance for period of lactation, 12 points.

Fraction of ounces of butter, and incomplete periods of less than 10 days, to be worked out in decimals, and added to the total points.

In the case of cows obtaining the same number of points, the prize to be awarded to the cow that has been longest time in milk.

A Certificate giving the last date of calving (which must be before 9 a.m. on October 6th), must reach the Secretary by Saturday, October 10th.

No prize will be awarded to animals in the Butter Tests which do not come up to the following Standard :—

Breed.	Cows under 5 years. Points.	Cows 5 years and over. Points.
Pedigree Shorthorns	30	34
Non-Pedigree Shorthorns	30	34
British Friesians	30	34
Lincolnshire Red Shorthorns... ..	30	34
Jerseys	30	35
Guernseys	27	30
Ayrshires	27	30
Red Polls	30	34
South Devons	30	34
Kerries	26	29
Dexters	26	29
Devons	27	30
Welsh Blacks	27	30
Blue Albions	30	34

Certificates of Merit and Highly Commended Cards will be given to Animals, other than Prize Winners, that reach the above standard.

The total number of entries, and the actual number tested at the 1925 Show, were as follows :—

Breed.	Number entered.	Number tested.
Pedigree Shorthorns	26	13
Non-Pedigree Shorthorns	9	2
Lincolnshire Red Shorthorns	13	10
British Friesians	38	19
South Devons	4	2
Dairy South Devons	1	1
Devons	9	8
Red Polls	14	6
Blue Albions	9	5
Welsh Blacks	5	2
Ayrshires	44	31
Guernseys	33	18
Jerseys	37	24
Kerries	15	7
Dexters	6	3
Three-Times Milkers	4	3
Total	267	154

Owing to the prevalence of Foot and Mouth Disease in various parts of the country, several cows which had been entered for the tests, were prevented from competing.

The number of Shorthorns tested shows a decrease of 3, as compared with the 1924 figure. The average yield of butter in this class is less than that obtaining at the 1924 Show—the respective figures being 1 lb. 11½ ozs. against 1 lb. 15 ozs. The butter ratio also shows a falling off—this being 1 to 27·6 as compared with 1 to 25·54 in 1924. Five of the 15 cows tested yielded over 2 lbs. of butter, each, in 24 hours. The highest yielder in this class was Mr. T. P. Preece's "Pencoyd Blanche 2nd," her yield amounting to 2 lbs. 6 ozs.

Major Yates' cow "Rickerscote Foggathorpe," which had calved 144 days, as against 41 days in the case of "Pencoyd Blanche 2nd," carried premier honours, her yield being 2 lbs. 3¼ ozs., with 10·4 points for lactation. The performances of Mr. A. B. Croxon's "Spot," with a yield of 2 lbs. 4 ozs., and Mr. F. H. Thornton's "Kingsthorpe Countess Ruby 2nd," with a yield of 2 lbs. 3 ozs. were also very creditable.

Two more Lincolnshire Red Shorthorns were tested in 1925, than was the case at the 1924 Show. The average yield in this class was 2 lbs. 1½ ozs., a decided increase on the 1924 figure of 1 lb. 12 ozs. The highest yield was that of Mr. John Evens' "Burton Amy 7th,"

2 lbs. 11 $\frac{3}{4}$ ozs. This animal was closely followed by "Burton Hempy 6th," belonging to the same owner, with a yield of 2 lb. 11 ozs. Mr. S. Reading's, "Langford Queen 7th," Mr. John Evens' "Burton Ethel 8th," and the Green Estate Co.'s "Langford Castle V," yielding respectively 2 lbs. 6 $\frac{1}{2}$ ozs., 2 lbs. 5 ozs., and 2 lbs. 4 $\frac{1}{2}$ ozs., are also worthy of mention.

The 19 British Friesians tested—a decrease of 4 on the 1924 figure—yielded on an average 1 lb. 15 ozs. of butter in 24 hours. This figure shows an increase of 3 ozs. on the average weight obtained at the previous Show. The First Prize in this class was awarded to the cow "Haydon Pax," from the Hache Herd. This cow yielded 3 lbs. 1 oz. from 68 lbs. 2 ozs. of milk, giving a butter ratio of 1 to 22.2—a very creditable performance. Mr. B. Parkinson's "Thurston Karel's Emily" carried the Second Prize, with a yield of 2 lbs. 5 $\frac{1}{4}$ ozs., having calved 124 days, thus gaining 8.4 points for lactation. Other animals which did well in this class were Mr. S. Pyman's "Felhampton Susan," with a yield of 2 lbs. 6 $\frac{1}{4}$ ozs., and "Hache Akkar Virtue," and "Hache Vespers," from the Hache Herd, with yields of 2 lbs. 4 $\frac{1}{4}$ ozs., and 2 lbs. 5 $\frac{3}{4}$ ozs. respectively.

Of the two South Devon cows tested, Mr. G. Wills' "Snowdrop 2nd," yielded 3 lbs. 2 $\frac{3}{4}$ ozs., with a butter ratio of 1 to 19.8—an excellent performance.

The Dairy South Devon cow, "Fairy Lady 2nd," belonging to Mr. R. Hall, yielded 2 lbs. 4 $\frac{1}{2}$ ozs. of butter, showing a butter ratio of 1 to 18.9.

The eight Devon Cows tested proved a good class, six of their number reaching the standard points for the breed. The highest yield was that of Mr. A. T. Loram's "May"—her yield amounting to 2 lbs. 5 $\frac{1}{2}$ ozs. "Janet," the property of the same exhibitor, yielded 2 lbs. 3 $\frac{1}{2}$ ozs., and Mr. Chick's two cows "Compton Holly" and "Lovely 4th," yielded 2 lbs. 2 $\frac{1}{4}$ ozs., and 2 lbs. of butter respectively.

The average yield of butter in the Red Poll Class was 1 lb. 11 $\frac{1}{2}$ ozs., as compared with 1 lb. 7 $\frac{3}{4}$ ozs. at the 1924 Show, and 1 lb. 9 $\frac{3}{4}$ ozs. at the 1923 Show. The highest yield, 1 lb. 15 $\frac{1}{4}$ ozs., was that of Major J. A. Morrison's "Spalding Pearl." Mr. Scrimgeour's cow "Tending Floss 29th," with a yield of 1 lb. 10 $\frac{1}{4}$ ozs., and a maximum of 12 points for lactation, was awarded the First Prize.

The five Blue Albions tested proved a good lot, four of their number yielding over 2 lbs. of butter each. The First Prize was awarded to Col. W. E. Harrison's "Bramshall Joan," with a yield of 2 lbs. 5 $\frac{3}{4}$ ozs. Mr. J. D. Seal's "Pike Venice," "Pike Verocity," and "Bradbourne Giddy Girl," yielded 2 lbs. 4 ozs., 2 lbs. 2 $\frac{1}{4}$ ozs., and 2 lbs. 0 $\frac{1}{4}$ ozs. respectively.

Two Welsh Black cows competed, and a Prize of £3 was awarded to Mr. C. W. Compton's, "Hall Green Gift," with a yield of 2 lbs. $3\frac{3}{4}$ ozs., and a butter ratio of 1 to 16.5.

The number of Ayrshires tested shows an increase of 16 on the 1924 figure. This breed once more gave ample proof of their butter-yielding capacity. The average yield, however, showed a slight decrease on the 1924 figure, the amount being 1 lb. $14\frac{3}{4}$ ozs. in 1925, as compared with 2 lbs. $0\frac{1}{4}$ oz. in 1924. Neither was the butter-ratio as good as that of the previous year, the figures being 1 to 26.60., and 1 to 22.65 respectively. The average results obtained in this class however, proved a very creditable one, considering the large number of cows tested, and the long distances most of the cattle had to travel. The premier honour went to Mr. W. Adamson's "Harleyholm Rosebud 2nd," with a yield of 2 lbs. $15\frac{1}{4}$ ozs.; and a butter ratio of 1 to 19.9. Mrs. H. Craufurd's "Dunlop Harpischord," carried the Second Prize, with a yield of 2 lbs. $10\frac{3}{4}$ ozs. The Third Prize went to Mr. Q. Dunlop's "Greenan Kate 6th," her yield amounting to 2 lbs. $8\frac{3}{4}$ ozs., to which 1.4 points were added for lactation. The Reserve Card went to Major C. R. Dudgeon's "Cargen Holm Proud Lady 8th," with a yield of 2 lbs. $9\frac{1}{4}$ ozs., the cow receiving no points for lactation.

Two more Guernseys were tested in 1925 than was the case in 1924. The average yield was slightly less than that of the previous year, the figure being 1 lb. 8 ozs. as compared with 1 lb. 9 ozs. Mr. T. R. Belitho's "Tregve Maze," took first place with a yield of 2 lbs. $6\frac{1}{4}$ ozs., and a butter ratio of 1 to 13.7, this cow having calved 191 days, thus gaining the maximum of 12 points for lactation. Mr. J. B. Body's "Morland Lady Richmond," was second, her yield being 2 lbs. $2\frac{3}{4}$ ozs. These were the only two animals, out of the 18 tested, which yielded over 2 lbs. of butter.

The number of Jerseys tested was only 24 as compared with 32 at the previous Show. As usual this proved an excellent class. The premier place was taken by Mr. R. Bruce Ward's "Pirouette," her yield amounting to 2 lbs. $7\frac{1}{4}$ ozs., having calved 153 days, thus gaining 11.3 points for lactation. This cow was the Reserve for the "National Butter Cup." The Second Prize went to Mr. F. B. Imbert-Terry's "Blue Hayes Sporrán," with a yield of 2 lbs. $3\frac{1}{4}$ ozs., having calved 248 days, thus gaining the maximum points for lactation. This cow—weighing only 871 lbs. live weight, won the "National Butter Cup."

The seven KERRIES competing proved the best lot of KERRIES ever tested at the Dairy Show. Four out of the seven yielded over 2 lbs. of butter each in 24 hours. The First Prize was easily won by Lady Fitzgerald's "Buckland Peace 2nd," her yield being 2 lbs. $12\frac{3}{4}$ ozs. with a butter ratio of 1 to 20.1—an excellent performance for a Kerry.

Two of the three Dexters tested reached the standard points for the breed.

No award was made in the "Three-times Milking" class, as none of the animals competing reached the necessary points.

My best thanks are due to my colleague Mr. J. G. W. Stafford, and others who rendered me valuable assistance in the carrying out of the tests.

The following table gives the average results for all breeds competing:—

Year.			Total No. of Cows.	Average weight of 24 hours' Milk.	Average Yield of Butter.	Average Butter Ratio.	Average No. of Points.
				lbs.	lbs. ozs.		
1919	...	...	94	37½	1 9½	23·43	28·61
1920	...	...	111	39	1 9¼	24·21	28·25
1921	...	...	173	39¾	1 6½	25·35	27·68
1922	...	...	187	42½	1 8¼	27·99	26·31
1923	...	...	143	41¾	1 11½	24·03	32·23
1924	...	...	148	43⅓	1 12⅓	24·21	32·55
1925	...	...	154	46⅓	1 13½	25·59	32·61

TABLE I.—NUMBER OF CATTLE TESTED SINCE 1901.

Breed	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1919	1920	1921	1922	1923	1924	1925
Shorthorns ...	15	31	18	14	17	22	26	26	19	22	26	30	26	20	20	24	30	63	39	34	18	15
Lincoln Reds ...	—	—	—	—	—	—	7	9	8	8	6	6	5	4	2	4	4	7	7	9	8	16
British Friesians ...	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	2	15	10	24	13	23	19
South Devons ...	—	—	2	2	3	5	—	—	4	7	2	4	2	6	3	—	—	5	5	3	—	2
Dairy South Devons...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Devons ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	2	6	7	5	3	8
Red Polls ...	2	6	5	4	11	12	11	3	4	4	1	1	—	—	1	11	12	17	23	13	17	6
Blue Albions ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	5
Welsh Blacks ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	2
Ayrshires ...	1	1	—	1	3	2	—	—	4	1	—	4	—	—	—	—	—	2	20	16	15	31
Chernseys ...	8	1	5	3	3	2	2	2	2	2	1	2	6	5	7	16	14	19	15	10	16	18
Jerseys ...	25	30	20	12	18	13	13	16	22	18	18	7	18	9	10	22	21	24	27	25	32	24
Kerries ...	—	—	—	—	1	2	2	2	2	—	1	—	5	—	—	4	8	17	13	7	10	7
Dexters ...	1	2	—	2	—	—	—	3	—	—	—	—	—	—	—	6	5	3	3	8	2	3
Three-Times Milkers...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cross-Breds ...	2	11	8	6	8	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch...	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTALS ...	54	82	59	44	64	68	61	65	61	62	55	54	62	45	45	94	111	173	187	143	148	154

TABLE II.—NUMBER OF CATTLE OF THE VARIOUS BREEDS TESTED SINCE 1895, WITH THEIR AVERAGE PERIOD OF LACTATION, WEIGHT OF BUTTER, BUTTER RATIOS, AND POINTS.

Year.	No.	Breed.	Average No of Days in Milk.	Average Weight of Butter.	Average Butter Ratio.	Average No. of Points.
				lbs. ozs.	lbs.	
From 1895 to 1915	447	Shorthorns ...	48	1 11 $\frac{1}{2}$	29.19	—
1919	24	" ...	34	1 13 $\frac{1}{4}$	24.35	28.82
1920	30	" ...	34	1 11 $\frac{1}{4}$	25.43	27.91
1921	63	" ...	29	1 8	30.25	24.20
1922	39	" ...	30	1 9	30.75	25.68
1923	34	" ...	57	1 14 $\frac{1}{2}$	26.01	32.59
1924	18	" ...	34 $\frac{3}{4}$	1 15	25.54	31.95
1925	15	" ...	40	1 11 $\frac{1}{2}$	27.60	28.46
From 1907 to 1915	55	Lincoln Reds	61 $\frac{1}{2}$	1 13 $\frac{1}{4}$	30.31	—
1919	4	" ...	58	1 13 $\frac{1}{4}$	29.20	32.32
1920	4	" ...	59	1 5 $\frac{1}{2}$	31.61	32.90
1921	7	" ...	64	1 13 $\frac{1}{4}$	27.13	31.40
1922	7	" ...	31 $\frac{1}{2}$	2 3 $\frac{3}{4}$	24.82	35.89
1923	9	" ...	58	1 14 $\frac{3}{4}$	26.37	32.73
1924	8	" ...	72 $\frac{3}{4}$	1 12	27.43	32.11
1925	10	" ...	39	2 1 $\frac{1}{2}$	27.27	34.27
From 1914 to 1915	3	B't'h Friesians	71	1 7 $\frac{3}{4}$	41.60	—
1919	2	" ...	28	1 10 $\frac{1}{2}$	36.05	26.50
1920	15	" ...	50	1 13	29.59	31.17
1921	10	" ...	85	2 3	28.26	39.00
1922	24	" ...	57	1 10	35.32	26.86
1923	13	" ...	65	1 11 $\frac{1}{4}$	32.22	31.76
1924	23	" ...	57 $\frac{3}{4}$	1 12	31.87	30.28
1925	19	" ...	45	1 15	32.36	32.50
From 1909 to 1915	28	South Devons	87	1 9 $\frac{1}{2}$	31.41	—
1921	5	" ...	77	1 14 $\frac{1}{4}$	22.06	34.42
1922	5	" ...	55	1 13	27.04	29.25
1923	3	" ...	36	2 3 $\frac{1}{2}$	21.43	35.76
1925	2	" ...	111	2 8 $\frac{1}{4}$	17.80	46.25
1925	1	Dairy South Devon	124	2 4 $\frac{1}{2}$	18.90	44.90
1919	5	Devons ...	60	1 9 $\frac{1}{4}$	24.47	27.57
1920	2	" ...	25	1 15 $\frac{1}{2}$	19.32	31.55
1921	6	" ...	48	1 15	21.92	32.60
1922	7	" ...	47 $\frac{1}{2}$	1 10 $\frac{3}{4}$	27.00	28.53
1923	5	" ...	41	1 14 $\frac{1}{4}$	23.18	31.29
1924	3	" ...	40 $\frac{3}{4}$	1 10 $\frac{1}{2}$	24.88	26.50
1925	8	" ...	51	1 13 $\frac{1}{4}$	24.40	30.78
From 1895 to 1915	95	Red Polls ...	70 $\frac{1}{4}$	1 3	30.62	—
1919	11	" ...	49	1 8 $\frac{1}{2}$	30.03	26.02
1920	12	" ...	61	1 5 $\frac{1}{2}$	31.46	23.66
1921	17	" ...	68	1 9 $\frac{1}{2}$	24.73	27.52
1922	23	" ...	59	1 3 $\frac{1}{2}$	34.09	21.75
1923	13	" ...	57	1 9 $\frac{3}{4}$	26.67	28.00
1924	17	" ...	76 $\frac{1}{4}$	1 7 $\frac{1}{2}$	25.79	24.96
1925	6	" ...	63	1 11 $\frac{1}{2}$	28.70	30.20

TABLE II.—NUMBER OF CATTLE OF THE VARIOUS BREEDS TESTED SINCE 1895, WITH THEIR AVERAGE PERIOD OF LACTATION, WEIGHT OF BUTTER, BUTTER RATIOS, AND POINTS—*Continued.*

Year.	No.	Breed.	Average No. of Days in Milk.	Average Weight of Butter.	Average Butter Ratio.	Average No. of Points.
				lbs. ozs.	lbs.	
1924	4	Blue Albions	26 $\frac{1}{2}$	1 15 $\frac{1}{2}$	23-34	31-63
1925	5	" ...	35	2 0 $\frac{3}{4}$	28-70	33-11
1922	4	Welsh Blacks	52	1 13 $\frac{1}{2}$	24-23	30-45
1925	2	" ...	42	1 15 $\frac{1}{2}$	21-60	31-62
From 1895 to 1915	25	Ayrshires ...	64	1 9 $\frac{1}{2}$	27-42	—
1921	2	" ...	39	2 5	20-15	37-20
1922	20	" ...	32 $\frac{1}{2}$	1 10 $\frac{1}{2}$	31-92	32-18
1923	16	" ...	29	1 14	23-88	30-35
1924	15	" ...	27	2 0 $\frac{1}{2}$	22-65	32-40
1925	31	" ...	33	1 14 $\frac{3}{4}$	26-60	31-60
From 1895 to 1915	74	Guernseys ...	85 $\frac{1}{2}$	1 8	22-72	—
1919	16	" ...	80	1 7 $\frac{3}{4}$	19-76	27-16
1920	14	" ...	82	1 8 $\frac{1}{2}$	21-22	28-53
1921	19	" ...	82	1 8 $\frac{1}{2}$	20-45	27-47
1922	15	" ...	52	1 8 $\frac{3}{4}$	21-95	27-31
1923	10	" ...	66	1 10 $\frac{3}{4}$	22-89	30-13
1924	16	" ...	84	1 9	22-30	29-08
1925	18	" ...	100	1 8	22-10	29-41
From 1895 to 1915	375	Jerseys ...	112 $\frac{3}{4}$	1 11	19-19	—
1919	22	" ...	111	1 11 $\frac{1}{2}$	18-76	33-59
1920	21	" ...	106	1 11	18-85	32-74
1921	24	" ...	127	1 9 $\frac{1}{2}$	18-56	32-29
1922	27	" ...	105	1 9 $\frac{1}{2}$	19-82	31-99
1923	25	" ...	135	1 10	18-49	35-31
1924	32	" ...	132	1 15 $\frac{1}{2}$	17-75	38-11
1925	24	" ...	135	1 13 $\frac{1}{2}$	18-61	38-60
From 1895 to 1915	26	Kerries and Dexters	101	1 2 $\frac{1}{2}$	31-97	—
1919	4	Kerries ...	32	1 2 $\frac{1}{2}$	27-66	18-71
1920	8	" ...	63	1 7	22-81	25-77
1921	17	" ...	76	1 3 $\frac{1}{2}$	23-16	22-43
1922	13	" ...	51	1 1 $\frac{1}{2}$	29-33	19-34
1923	7	" ...	156	1 8 $\frac{3}{4}$	24-60	29-74
1924	10	" ...	82	1 5	26-90	24-42
1925	7	" ...	68	1 15 $\frac{1}{2}$	24-58	34-65
1919	6	Dexters ...	129	0 15 $\frac{1}{2}$	23-48	23-84
1920	5	" ...	112	0 12 $\frac{1}{2}$	21-78	19-21
1921	3	" ...	153	0 11	24-33	22-30
1922	3	" ...	143	0 13 $\frac{1}{2}$	25-82	21-73
1923	8	" ...	150	0 13 $\frac{1}{2}$	25-20	23-56
1924	2	" ...	78	1 7 $\frac{1}{2}$	23-01	20-35
1925	3	" ...	118	1 5 $\frac{1}{2}$	25-40	29-22
1925	3	Three times Milkers	24	1 11 $\frac{1}{2}$	40-10	27-25

TABLE III.—AVERAGE YIELD OF BUTTER OF THE DIFFERENT BREEDS AT DIFFERENT PERIODS.

Year.	Breed.	No. of Cows.	Days in Milk, 50	No. of Cows.	Days in Milk, 100	No. of Cows.	Days in Milk, 135	No. of Cows.	Days in Milk, 190.
1895 to			lbs. ozs.		lbs. ozs.		lbs. ozs.		lbs. ozs.
1915	Shorthorns	192	1 12 $\frac{3}{4}$	43	1 9 $\frac{1}{2}$	18	1 8 $\frac{1}{2}$	8	1 1 $\frac{1}{2}$
1919	"	20	1 13 $\frac{1}{2}$	4	1 12 $\frac{1}{4}$	—	—	—	—
1920	"	25	1 12 $\frac{1}{4}$	5	1 6 $\frac{1}{2}$	—	—	—	—
1921	"	56	1 8 $\frac{1}{2}$	5	1 5 $\frac{1}{2}$	—	—	—	—
1922	"	33	1 9	5	1 4 $\frac{3}{4}$	1	1 $\frac{1}{2}$	—	—
1923	"	24	1 15 $\frac{1}{3}$	4	2 0 $\frac{1}{2}$	2	1 13	4	1 5
1924	"	16	2 0	1	1 3 $\frac{3}{4}$	—	—	1	1 11
1925	"	12	1 12 $\frac{3}{4}$	2	0 15 $\frac{1}{4}$	—	—	1	2 3 $\frac{3}{4}$
1907 to	Lincoln	30	1 13 $\frac{1}{4}$	5	1 11	4	1 9 $\frac{3}{8}$	4	1 11 $\frac{1}{8}$
1915	Reds								
1919	"	2	1 14 $\frac{1}{4}$	1	2 3 $\frac{1}{2}$	1	1 6 $\frac{1}{2}$	—	—
1920	"	2	1 8 $\frac{1}{4}$	2	1 2 $\frac{1}{2}$	—	—	—	—
1921	"	4	1 14 $\frac{1}{2}$	1	1 10 $\frac{1}{3}$	2	1 11 $\frac{1}{2}$	—	—
1922	"	7	2 3 $\frac{3}{4}$	—	—	—	—	—	—
1923	"	5	1 12 $\frac{3}{4}$	2	1 10	—	—	2	1 8
1924	"	5	1 12 $\frac{3}{4}$	—	—	2	1 8 $\frac{1}{4}$	1	2 1
1925	"	8	2 2	2	1 14 $\frac{1}{4}$	—	—	—	—
1914 to	British	1	1 14	1	1 10	1	1 3 $\frac{1}{2}$	—	—
1915	Friesians								
1919	"	2	1 10 $\frac{1}{2}$	—	—	—	—	—	—
1920	"	10	1 12 $\frac{1}{4}$	3	1 11 $\frac{3}{4}$	2	2 2 $\frac{1}{4}$	—	—
1921	"	3	2 3 $\frac{1}{2}$	2	1 14	3	2 6 $\frac{1}{4}$	2	2 1 $\frac{1}{2}$
1922	"	17	1 11 $\frac{1}{2}$	3	1 12 $\frac{3}{4}$	2	1 0 $\frac{3}{4}$	2	1 0 $\frac{1}{2}$
1923	"	6	1 7 $\frac{1}{4}$	4	2 0 $\frac{3}{4}$	1	2 4 $\frac{1}{2}$	2	1 13 $\frac{3}{4}$
1924	"	14	2 0	7	1 6 $\frac{1}{2}$	—	—	2	1 3 $\frac{3}{4}$
1925	"	13	1 14	5	2 0 $\frac{3}{4}$	1	2 5 $\frac{1}{2}$	—	—
1909 to	South	10	1 15 $\frac{7}{10}$	8	1 6 $\frac{3}{4}$	3	1 13 $\frac{1}{3}$	7	1 6 $\frac{1}{2}$
1915	Devons								
1921	"	1	2 6	3	1 8 $\frac{1}{2}$	—	—	1	2 7
1922	"	2	2 2 $\frac{3}{4}$	3	1 10 $\frac{1}{4}$	—	—	—	—
1923	"	2	2 5 $\frac{1}{2}$	1	1 15	—	—	—	—
1925	"	1	3 2 $\frac{3}{4}$	—	—	—	—	1	1 13 $\frac{3}{4}$
1925	Dairy S'th	—	—	—	—	1	2 4 $\frac{1}{2}$	—	—
	Devon								
1919	Devons	2	1 15 $\frac{1}{2}$	2	1 6 $\frac{1}{4}$	1	1 3	—	—
1920	"	2	1 15 $\frac{1}{2}$	—	—	—	—	—	—
1921	"	5	2 0 $\frac{1}{2}$	—	—	—	—	1	1 6
1922	"	6	1 12 $\frac{3}{4}$	—	—	—	—	1	0 14 $\frac{1}{2}$
1923	"	3	1 13 $\frac{1}{4}$	2	1 15 $\frac{1}{2}$	—	—	—	—
1924	"	3	1 10 $\frac{1}{2}$	—	—	—	—	—	—
1925	"	7	1 15	—	—	—	—	—	—
1895 to	Red Polls								
1915		33	1 3 $\frac{1}{2}$	15	1 5 $\frac{1}{2}$	10	1 0 $\frac{3}{4}$	7	0 14 $\frac{1}{2}$
1919	"	6	1 10	5	1 6 $\frac{1}{4}$	—	—	—	—
1920	"	8	1 7 $\frac{1}{4}$	2	1 2	1	0 15 $\frac{1}{2}$	1	1 2
1921	"	7	1 12 $\frac{1}{2}$	6	1 6 $\frac{3}{4}$	2	1 9 $\frac{1}{2}$	2	1 7 $\frac{1}{2}$
1922	"	13	1 2 $\frac{3}{4}$	7	1 4	2	1 1 $\frac{3}{4}$	1	0 15
1923	"	7	1 8 $\frac{3}{4}$	4	1 6 $\frac{3}{4}$	1	2 4 $\frac{1}{2}$	1	2 2 $\frac{1}{4}$
1924	"	10	1 10	2	1 4	1	1 7 $\frac{1}{4}$	4	1 3 $\frac{1}{4}$
1925	"	6	1 14 $\frac{1}{4}$	1	1 10 $\frac{3}{4}$	—	—	1	1 10 $\frac{1}{4}$

TABLE III.—AVERAGE YIELD OF BUTTER OF THE DIFFERENT BREEDS AT DIFFERENT PERIODS—*Continued.*

Year.	Breed.	No. of Cows.	Days in Milk, 50.	No. of Cows.	Days in Milk, 100.	No. of Cows.	Days in Milk, 135.	No. of Cows.	Days in Milk, 190.
			lbs. ozs.		lbs. ozs.		lbs. ozs.		lbs. ozs.
1924	Blue Albions	3	1 15 $\frac{1}{2}$	1	1 15	—	—	—	—
1925	"	4	2 3	1	1 8	—	—	—	—
1922	Welsh Blacks	2	1 14 $\frac{3}{4}$	2	1 4 $\frac{3}{4}$	—	—	—	—
1925	"	2	1 15 $\frac{1}{4}$	—	—	—	—	—	—
1908 to 1915	Ayrshires	2	1 4 $\frac{1}{2}$	3	1 9 $\frac{1}{2}$	—	—	1	0 12
1921	"	2	2 5	—	—	—	—	—	—
1922	"	16	1 7 $\frac{3}{4}$	3	1 2 $\frac{3}{4}$	—	—	1	1 2 $\frac{3}{4}$
1923	"	14	1 15	2	1 8 $\frac{1}{2}$	—	—	—	—
1924	"	15	2 0 $\frac{1}{2}$	—	—	—	—	—	—
1925	"	27	1 14 $\frac{1}{2}$	4	1 14 $\frac{3}{4}$	—	—	—	—
1895 to 1915	Guernseys	17	1 6 $\frac{1}{4}$	13	1 7	9	1 8 $\frac{3}{8}$	12	1 5 $\frac{1}{2}$
1919	"	8	1 8 $\frac{1}{4}$	2	1 11	2	1 2 $\frac{1}{4}$	4	1 7 $\frac{1}{4}$
1920	"	4	1 10 $\frac{1}{4}$	5	1 11 $\frac{1}{4}$	3	1 2 $\frac{1}{4}$	1	1 2
1921	"	7	1 12	5	1 5	2	1 7 $\frac{1}{4}$	5	1 7
1922	"	9	1 8 $\frac{3}{4}$	3	1 12	1	1 5 $\frac{1}{2}$	2	1 7
1923	"	5	1 10 $\frac{1}{2}$	2	1 11 $\frac{1}{4}$	1	2 1 $\frac{1}{2}$	2	1 7 $\frac{3}{4}$
1924	"	8	1 8 $\frac{3}{4}$	2	1 9 $\frac{3}{4}$	3	1 6 $\frac{3}{4}$	3	1 10 $\frac{3}{4}$
1925	"	6	1 7 $\frac{1}{4}$	2	1 5 $\frac{1}{2}$	3	1 10	2	1 8 $\frac{3}{4}$
1895 to 1915	Jerseys	64	1 9 $\frac{3}{4}$	70	1 9 $\frac{1}{2}$	65	1 11 $\frac{1}{8}$	98	1 10 $\frac{3}{4}$
1919	"	3	1 15 $\frac{1}{4}$	8	1 7 $\frac{1}{2}$	4	1 12 $\frac{1}{4}$	4	1 11 $\frac{1}{4}$
1920	"	6	1 13 $\frac{1}{2}$	4	1 11 $\frac{1}{4}$	3	1 14	6	1 5 $\frac{1}{2}$
1921	"	1	1 2 $\frac{3}{4}$	8	1 8 $\frac{1}{2}$	4	1 15	8	1 7 $\frac{1}{2}$
1922	"	4	1 12 $\frac{3}{4}$	8	1 11 $\frac{1}{2}$	7	1 8 $\frac{1}{2}$	8	1 6 $\frac{3}{4}$
1923	"	1	1 9 $\frac{1}{2}$	3	1 11 $\frac{1}{4}$	8	1 9 $\frac{1}{4}$	13	1 10 $\frac{3}{4}$
1924	"	2	1 10 $\frac{1}{2}$	6	1 11 $\frac{1}{4}$	7	1 15 $\frac{1}{2}$	17	1 14
1925	"	4	1 13 $\frac{1}{2}$	5	2 1 $\frac{1}{2}$	4	1 6	5	2 0 $\frac{3}{4}$
1908 to 1921	Kerries & Dexters	21	1 6	10	1 3 $\frac{3}{4}$	7	0 15 $\frac{1}{2}$	13	1 0
1922	Kerries	7	1 2 $\frac{1}{2}$	5	1 1	—	—	1	0 12
1923	"	3	1 12	1	1 8	1	1 10 $\frac{3}{4}$	2	1 2 $\frac{3}{4}$
1924	"	2	1 10 $\frac{1}{4}$	6	1 2 $\frac{3}{4}$	1	1 8 $\frac{1}{2}$	1	1 4
1925	"	5	2 3	—	—	—	—	2	1 5 $\frac{1}{2}$
1922	Dexters	1	0 12	2	0 13	—	—	—	—
1923	"	1	0 10	1	0 10	—	—	6	0 15
1924	"	1	0 13 $\frac{1}{4}$	—	—	1	1 2	—	—
1925	"	1	1 10 $\frac{1}{4}$	—	—	—	—	2	1 3 $\frac{1}{4}$
1925	Threetimes Milkers	3	1 11 $\frac{1}{4}$	—	—	—	—	—	—

TABLE IV.—COMPARISON OF CHURNINGS WITH ANALYSES.

SHORTHORNS.

No. in Catalogue	Weight of Butter Churned.		Total Fat by Analyses.		No. in Catalogue	Weight of Butter Churned.		Total Fat by Analyses.	
	lbs.	ozs.	lbs.	ozs.		lbs.	ozs.	lbs.	ozs.
3	2	3 $\frac{3}{4}$	2	7 $\frac{1}{2}$	28	1	4	1	6
4	1	8	1	11	41	1	13	1	14 $\frac{1}{2}$
5	1	6 $\frac{1}{2}$	1	9 $\frac{3}{4}$	54	1	8 $\frac{1}{2}$	1	6 $\frac{3}{4}$
6	2	6	2	6	71	0	11 $\frac{1}{2}$	1	1
8	1	11 $\frac{1}{4}$	1	11	72	1	10	1	15
10	2	3	2	11	77	2	4	3	0
11	2	0	2	4	84	1	4 $\frac{1}{2}$	1	6 $\frac{1}{2}$
27	1	14	1	15					
						25	12	28	13

LINCOLN RED SHORTHORNS.

104	2	11 $\frac{3}{4}$	2	11	111	2	4 $\frac{1}{2}$	2	10
106	2	5	2	7 $\frac{1}{2}$	113	1	12 $\frac{1}{2}$	2	4
107	2	11	2	10 $\frac{3}{4}$	115	2	6 $\frac{1}{2}$	2	7 $\frac{1}{2}$
108	2	0 $\frac{1}{2}$	1	14	117	1	13 $\frac{1}{4}$	1	12 $\frac{1}{4}$
109	1	13 $\frac{1}{4}$	1	11					
110	1	0 $\frac{1}{2}$	1	2		20	14 $\frac{1}{2}$	21	10

BRITISH FRIESIANs.

131	1	10 $\frac{1}{4}$	1	14 $\frac{3}{4}$	148	2	4	2	15
133	1	11	2	8	151	2	5 $\frac{3}{4}$	2	9 $\frac{1}{2}$
134	2	1	2	9	158	1	8 $\frac{3}{4}$	1	14 $\frac{1}{2}$
136	1	8 $\frac{1}{2}$	1	10 $\frac{1}{4}$	159	2	5 $\frac{1}{2}$	3	2
137	3	1	3	1	160	1	14	1	14 $\frac{1}{2}$
138	1	10	2	5	162	2	4 $\frac{1}{4}$	2	2
139	2	6 $\frac{1}{4}$	2	12	163	2	5 $\frac{3}{4}$	2	3 $\frac{1}{2}$
141	1	3 $\frac{1}{2}$	2	1	164	2	5 $\frac{1}{4}$	2	6
142	1	11	2	2	171	1	7 $\frac{1}{2}$	2	3 $\frac{1}{4}$
145	1	5 $\frac{1}{4}$	1	6 $\frac{1}{2}$					
						37	0 $\frac{1}{2}$	43	11 $\frac{1}{4}$

SOUTH DEVONS.

187	1	13 $\frac{3}{4}$	1	13 $\frac{1}{4}$	189	3	2 $\frac{3}{4}$	3	2
						5	0 $\frac{1}{2}$	4	15 $\frac{1}{4}$

TABLE IV.—COMPARISON OF CHURNINGS WITH ANALYSES—*Continued.*

DAIRY SOUTH DEVONS.

No. in Catalogue.	Weight of Butter Churned.		Total Fat by Analyses.		No. in Catalogue.	Weight of Butter Churned.		Total Fat by Analyses.	
	lbs.	ozs.	lbs.	ozs.		lbs.	ozs.	lbs.	ozs.
192	2	4½	2	5		—		—	

DEVONS.

200	1	8½	1	9½	204	1	5½	1	7½
201	2	0	1	14	205	2	3½	2	9
202	2	2½	2	1¾	206	2	5½	2	12¼
203	2	0	2	3½	207	1	1½	1	6½
						14	0¼	16	0¼

RED POLLS.

211	1	15½	2	4½	215	1	10¼	2	0
212	1	9½	2	7¼	222	1	8½	1	12¾
213	1	14¾	2	5	229	1	10½	2	3
						10	4½	13	0½

BLUE ALBIONS.

238	2	5 $\frac{3}{4}$	2	10 $\frac{3}{4}$	242	2	0 $\frac{1}{4}$	2	11 $\frac{3}{4}$
239	1	8	1	10 $\frac{1}{2}$	243	2	4	2	13 $\frac{1}{2}$
241	2	2 $\frac{1}{4}$	2	9 $\frac{1}{2}$		10	4 $\frac{1}{4}$	12	7

WELSH BLACKS.

248	1	11	1	15	251	2	3¾	2	8½
						3	14¾	4	7½

TABLE IV.—COMPARISON OF CHURNINGS WITH ANALYSES—*Continued.*
AYRSHIRES.

No. in Catalogue.	Weight of Butter Churned.		Total Fat by Analyses.		No. in Catalogue.	Weight of Butter Churned.		Total Fat by Analyses.	
	lbs.	ozs.	lbs.	ozs.		lbs.	ozs.	lbs.	ozs.
252	2	5	2	7 $\frac{3}{4}$	276	1	8 $\frac{3}{4}$	1	11 $\frac{1}{2}$
253	2	6	2	10 $\frac{1}{2}$	277	1	9 $\frac{1}{2}$	1	10 $\frac{1}{2}$
254	2	9 $\frac{1}{2}$	2	14	278	1	14 $\frac{1}{2}$	1	15 $\frac{1}{2}$
255	1	11 $\frac{3}{4}$	1	12 $\frac{1}{4}$	279	1	14 $\frac{1}{4}$	1	14 $\frac{1}{2}$
256	2	5 $\frac{3}{4}$	2	7 $\frac{3}{4}$	280	1	11	1	14 $\frac{1}{2}$
257	1	4 $\frac{1}{4}$	2	9	284	1	6	1	10 $\frac{3}{4}$
259	2	8 $\frac{1}{4}$	2	7	286	1	2	1	6
260	1	5 $\frac{1}{2}$	1	4 $\frac{3}{4}$	287	2	4 $\frac{1}{2}$	2	4 $\frac{3}{4}$
261	1	5 $\frac{1}{2}$	1	9 $\frac{1}{2}$	288	1	8 $\frac{1}{2}$	1	9 $\frac{1}{2}$
264	2	3 $\frac{1}{2}$	2	13	289	2	0 $\frac{1}{2}$	2	0 $\frac{3}{4}$
265	1	9 $\frac{1}{4}$	2	5 $\frac{1}{4}$	291	1	10 $\frac{3}{4}$	1	10 $\frac{1}{2}$
269	1	14	2	13	293	1	10 $\frac{1}{2}$	2	0 $\frac{3}{4}$
270	2	8 $\frac{3}{4}$	2	5 $\frac{3}{4}$	294	1	10 $\frac{1}{4}$	1	8 $\frac{1}{2}$
271	2	15 $\frac{1}{4}$	2	12 $\frac{3}{4}$	295	1	14 $\frac{1}{2}$	1	15 $\frac{3}{4}$
272	2	3 $\frac{1}{4}$	2	8	296	1	14	1	14 $\frac{1}{2}$
275	2	10 $\frac{3}{4}$	2	5 $\frac{1}{2}$					
						59	7 $\frac{1}{2}$	65	5 $\frac{3}{4}$

GUERNSEYS.

298	0	10 $\frac{1}{2}$	1	4 $\frac{3}{4}$	317	1	8 $\frac{3}{4}$	1	8 $\frac{1}{4}$
299	1	6 $\frac{1}{4}$	1	4 $\frac{1}{4}$	318	1	2	0	15 $\frac{1}{4}$
306	2	6 $\frac{3}{4}$	2	6 $\frac{3}{4}$	319	1	2 $\frac{1}{2}$	1	2
307	1	7 $\frac{3}{4}$	1	9 $\frac{3}{4}$	321	2	2 $\frac{3}{4}$	2	1
308	1	8 $\frac{3}{4}$	1	9 $\frac{1}{2}$	322	1	14 $\frac{3}{4}$	1	14 $\frac{3}{4}$
309	1	8	1	7 $\frac{1}{2}$	325	1	2 $\frac{3}{4}$	1	7 $\frac{1}{2}$
312	1	5 $\frac{3}{4}$	1	6 $\frac{3}{4}$	329	1	3 $\frac{1}{4}$	1	10 $\frac{1}{2}$
314	1	14 $\frac{1}{2}$	1	15 $\frac{3}{4}$	330	1	6 $\frac{3}{4}$	1	8 $\frac{1}{4}$
316	1	8 $\frac{3}{4}$	1	9 $\frac{3}{4}$	336	1	9 $\frac{3}{4}$	1	10
						27	1 $\frac{3}{4}$	28	8 $\frac{1}{4}$

JERSEYS.

337	2	0 $\frac{3}{4}$	2	0 $\frac{3}{4}$	357	2	1 $\frac{3}{4}$	2	6 $\frac{1}{4}$
338	1	6 $\frac{3}{4}$	1	5	358	1	15 $\frac{1}{4}$	1	14
339	2	3 $\frac{1}{2}$	1	9 $\frac{3}{4}$	359	2	0 $\frac{3}{4}$	2	0
341	1	13 $\frac{3}{4}$	2	2	362	1	11 $\frac{1}{4}$	1	13 $\frac{1}{4}$
342	1	15 $\frac{1}{4}$	2	0 $\frac{1}{2}$	366	2	0	2	1
343	1	14 $\frac{3}{4}$	2	0 $\frac{3}{4}$	367	1	15 $\frac{1}{2}$	1	10 $\frac{1}{2}$
344	2	7 $\frac{1}{2}$	2	9 $\frac{3}{4}$	371	1	12 $\frac{3}{4}$	1	14
349	0	14 $\frac{1}{2}$	1	2	378	1	9	1	9 $\frac{1}{2}$
350	2	4 $\frac{3}{4}$	1	15	381	2	0 $\frac{3}{4}$	1	14 $\frac{1}{2}$
351	1	15 $\frac{1}{2}$	2	2 $\frac{1}{2}$	385	1	0	0	15
353	2	6 $\frac{1}{2}$	2	4 $\frac{1}{2}$	389	1	6 $\frac{1}{2}$	1	6
356	2	4 $\frac{1}{4}$	1	14 $\frac{1}{2}$	391	1	1 $\frac{1}{2}$	1	3 $\frac{1}{2}$
						44	7 $\frac{1}{4}$	43	14 $\frac{1}{4}$

TABLE IV.—COMPARISON OF CHURNINGS WITH ANALYSES—*Continued.*

KERRIES.

No. in Catalogue	Weight of Butter Churned.		Total Fat by Analyses.		No. in Catalogue.	Weight of Butter Churned.		Total Fat by Analyses.	
	lbs.	ozs.	lbs.	ozs.		lbs.	ozs.	lbs.	ozs.
394	2	12 $\frac{3}{4}$	2	13 $\frac{1}{2}$	399	2	6 $\frac{3}{4}$	2	6 $\frac{3}{4}$
395	2	0 $\frac{1}{2}$	2	3 $\frac{1}{2}$	405	1	6	1	6 $\frac{1}{2}$
397	1	5	1	8	406	1	10 $\frac{3}{4}$	1	13
398	2	0 $\frac{3}{4}$	1	12 $\frac{3}{4}$		13	10 $\frac{1}{2}$	14	0

DEXTER KERRIES.

418	1	2 $\frac{1}{4}$	1	2	421	1	10 $\frac{1}{4}$	1	8 $\frac{1}{4}$
420	1	4 $\frac{1}{4}$	1	5 $\frac{1}{4}$		4	0 $\frac{3}{4}$	3	15 $\frac{1}{2}$

THREE TIMES MILKERS.

426	1	10	2	10	432	1	10 $\frac{3}{4}$	1	12
427	1	13	2	4 $\frac{1}{2}$		5	1 $\frac{1}{4}$	6	10 $\frac{1}{2}$

TABLE V.—AVERAGE DIFFERENCES BETWEEN CHURNINGS AND
CHEMICAL ANALYSES FROM 1898.

Year	Breed	Churn	Analyses
		Lbs. Butter	Lbs. Fat
From 1898 to 1915	Shorthorns	40.79	43.72
1919	" " " "	43.86	42.40
1920	" " " "	51.25	52.57
1921	" " " "	94.84	112.69
1922	" " " "	61.26	71.69
1923	" " " "	65.15	71.94
1924	" " " "	35.02	36.15
1925	" " " "	25.75	28.81
From 1907 to 1915	Lincolnshire		
	Red Shorthorns	12.01	11.77
1919	" " "	7.47	7.15
1920	" " "	5.37	5.81
1921	" " "	12.77	13.01
1922	" " "	15.62	14.96
1923	" " "	16.90	19.72
1924	" " "	14.06	12.98
1925	" " "	20.89	21.62
1914	British Friesians	1.20	1.69
1915	" " " "	3.50	4.00
1919	" " " "	3.31	3.33
1920	" " " "	27.10	29.06
1921	" " " "	21.81	25.18
1922	" " " "	38.87	44.50
1923	" " " "	22.92	27.32
1924	" " " "	40.37	46.74
1925	" " " "	39.05	43.73
From 1909 to 1915	South Devons	8.12	8.69
1921	" " " "	9.46	10.50
1922	" " " "	9.25	9.71
1923	" " " "	6.62	7.13
1925	" " " "	39.04	4.95
1925	Dairy South Devons ...	2.28	2.31

TABLE V.—AVERAGE DIFFERENCES BETWEEN CHURNINGS AND
CHEMICAL ANALYSES FROM 1898—*Continued.*

Year	Breed	Churn	Analyses
		Lbs. Butter	Lbs. Fat
1919	Devons	7.92	8.10
1920	"	3.94	3.59
1921	"	11.58	12.73
1922	"	11.69	12.72
1923	"	9.51	9.88
1924	"	4.97	5.76
1925	"	14.64	16.02
From 1898 to 1915	Red Polls	9.01	10.62
1919	"	16.71	18.83
1920	"	15.98	18.89
1921	"	27.06	29.98
1922	"	28.33	35.61
1923	"	21.07	24.15
1924	"	25.12	28.36
1925	"	10.28	13.04
1924	Blue Albions	7.76	8.92
1925	" "	10.27	12.43
1922	Welsh Blacks	7.30	6.70
1925	" "	3.92	4.47
1910	Ayrshires	1.94	1.75
1912	"	5.37	5.89
1921	"	4.62	4.69
1922	"	27.85	31.52
1923	"	30.19	32.95
1924	"	30.52	35.15
1925	"	59.47	65.36

TABLE V.—AVERAGE DIFFERENCES BETWEEN CHURNINGS AND CHEMICAL ANALYSES FROM 1898—*Continued.*

Year	Breed	Churn	Analyses
		Lbs. Butter	Lbs. Fat
From 1898 to 1915	Guernseys	7.11	7.17
1919	"	23.72	23.66
1920	"	21.23	21.62
1921	"	28.94	28.87
1922	"	22.46	23.14
1923	"	16.80	16.78
1924	"	25.98	25.60
1925	"	27.11	28.51
From 1898 to 1915	Jerseys	30.67	29.42
1919	"	37.44	35.18
1920	"	25.06	24.55
1921	"	29.75	28.50
1922	"	43.22	42.05
1923	"	41.38	41.40
1924	"	59.18	58.87
1925	"	44.45	43.92
1907	Kerries	3.40	3.19
1908	Kerries and Dexters ...	6.89	7.09
1909	Kerries	2.75	2.64
1911	"	1.21	0.96
1913	"	5.94	6.10
1919	"	4.66	4.64
1920	"	11.50	11.48
1921	"	18.78	21.96
1922	"	14.14	13.57
1923	"	10.81	*9.75
1924	"	13.11	13.75
1925	"	13.66	14.00
1919	Dexters	5.77	5.58
1920	"	3.96	3.84
1921	"	2.06	2.50
1922	"	2.52	2.77
1923	"	6.90	6.76
1924	"	1.97	2.11
1925	"	4.05	3.96
1925	Three times Milkers ...	5.11	6.66

* Does not include the fat of No. 466.

BUTTER TESTS—SHORTHORNS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield			Butter Yield	Ratio, viz., lbs. Milk to lbs. Butter	Colour	Colour and Quality of Butter	No. of Pounds for Butter	No. of Pounds for Lactation	Total Number of Points	Awards			
							Morn.	Even.	Total	lbs ozs lbs ozs lbs ozs										
3	Major S. P. Yates	Rickerscote Foggathorpe	1368	Jan. 25, 1920	1925. May	28	144	28	224	852	102	31	23·6	Pale	Good	35·75	10·40	46·15	1st Prize & G. B. Nelson Cup.	
4	E. A. Smith	Barrington	1221	July 15, 1918	Sept. 15	34	22	6	19	0	41	61	8	27·6	Fair	24·00	—	24·00		
5	E. A. Smith	Empress 3rd Wild Eyes Lady	1299	Nov. 13, 1918	Sept. 27	22	27	0	25	0	52	01	6½	37·0	Fair	Good	22·50	—	22·50	
6	T. P. Preece	Peacoyd	1186	April 15, 1920	Sept. 8	41	31	10	26	13	58	72	6	24·5	Fair	Good	38·00	0·10	38·10	R & H.C.
8	J. Pierpont	Blanche 2nd	1748	Jan. 25, 1919	Sept. 8	41	22	14	18	10	41	81	11½	24·4	Good	Fair	27·25	0·10	27·35	
10	F. H. Thornton	Rickerscote Rosannah Kingshorpe Countess Ruby	1230	June 16, 1918	Oct. 6	13	24	11	23	6	48	12	3	22·0	Good	Soft	35·00	—	35·00	H.C.
11	T. L. Martin	Hutton	1381	Aug. 19, 1917	Oct. 4	15	26	14	21	2	48	02	0	24·0	Good	Good	32·00	—	32·00	H.C.
27	Viscount Feilding	Daffodil 2nd Sudborough	1280	Dec. 1, 1921	Sept. 25	24	26	8	27	13	54	51	14	29·0	Pale	Good	30·00	—	30·00	H.C.
28	Col. Spence-Colby, C.M.G., D.S.O.	Spotless 45th ... Ringlet	1376	Oct. 28, 1921	Aug. 21	59	13	6	14	0	27	61	4	21·9	Good	Good	20·00	1·90	21·90	
41	Capt. A. S. Wills	Thornby Lady Windsor	1428	Nov. 25, 1920	Sept. 19	30	25	2	21	2	46	41	13	25·6	Fair	Fair	29·00	—	29·00	

BUTTER TESTS—SHORTHORNS—Continued.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milks	Milk Yield			Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Even.	Total		Colour	Quality				
			lbs.				lbs ozs	lbs ozs	lbs ozs							
54	T. L. Martin	Barrington Lucy	962	April 4, 1923	1925. Aug. 20	60	18	10	13	11 32	5 1	8 3	—	—	24.75	
71	E. A. Smith	Longhills Briar	1182	Sept. 26, 1922	Aug. 16	64	23	6	17	0 40	60	11 3	2.40	13.40	—	
72	E. A. Smith	Longhills Darlington 3rd	1114	Jan. 30, 1923	Sept. 15	34	26	8	19	13 46	5 1	10	—	—	26.00	
77	A. B. Croxon	Spot	1592	1915	Sept. 23	26	34	13	28	0 62	13 2	4	—	—	36.00	H.C.
84	J. Day	Fanny	1256	1921	Sept. 28	21	20	10	18	14 39	8 1	4 1	—	—	20.25	
104	J. Evens & Son	Burton Amy 7th	1449	Mar. 14, 1916	Sept. 16	33	38	8	31	10 70	2 2	11 3	—	—	43.75	2nd Prize
106	J. Evens & Son	Burton Ethel 8th	1332	Aug. 22, 1920	Sept. 28	21	32	3	25	2 57	5 2	5	—	—	37.00	H.C.
107	J. Evens & Son	Burton Hempy 6th	1229	Aug. 1920	Sept. 27	22	38	0	30	0 68	0 2	11	—	—	43.00	3rd Prize
108	B. G. Bowser	Soothern Mystic	1549	May 26, 1918	Aug. 3	77	31	2	24	10 55	12 2	0 1	3.70	36.20	—	H.C.
109	B. G. Bowser	Soothern Merrymaid	1559	June 3, 1918	July 25	86	23	14	19	13 43	11 1	13 1	4.00	33.85	—	H.C.
110	B. G. Bowser	Soothern Betty 3rd	1479	May 5, 1919	Sept. 26	23	22	3	16	14 39	1 1	0 1	—	—	16.25	

BUTTER TESTS—SHORTHORNS—Continued.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield			Butter Yield	Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards.
							Morn.	Even.	Total			Colour	Quality				
			lbs.				lbs	ozs	lbs	ozs	lbs	ozs					
111	Littile Green Estates Co.	Langford Castle 5th	1319	Sept. 23, 1920	Sept. 29, 1925.	20	33	2	29	2	42	4	27	3	36	50	H.C.
113	Slade & Merton ...	Langford Norman 7th	1084	Sept. 29, 1921	Sept. 7	42	31	0	26	6	57	6	32	6	28	25	0
115	S. Reading	Langford Queen 7th	1253	Jan. 25, 1918	Sept. 18	31	27	8	25	14	53	6	22	2	38	50	4th Prize
117	J. O. Burchnell ...	Flanville Dairy-maid 120th	1272	Dec. 10, 1917	Sept. 10	39	22	5	20	13	43	2	23	6	29	25	

BUTTER TESTS—SHORTHORNS—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE				
		Time		Dairy	Temperature	
		Churning began	Churning finished		Cream and Churn	Buttermilk, when churning finished
		Minutes	Degrees	Degrees	Degrees	Degrees
3	Rickerscote Foggathorpe...	9 13 a.m.	9 43 a.m.	56	52	64
4	Barrington Empress 3rd...	9 10 "	9 33 "	56	52	64
5	Wild Eyes Lady ...	9 10 "	10 5 "	56	52	55
6	Pencoyd Blanche 2nd ...	9 10 "	9 35 "	56	52	53
8	Rickerscote Rosannah ...	9 14 "	10 0 "	56	52	53
10	Kingsthorpe Countess Ruby 2nd...	9 15 "	9 35 "	56	52	54
11	Hutton Duffodil 2nd ...	9 17 "	9 41 "	56	52	52
27	Sudborough Kinglet ...	9 20 "	9 36 "	56	52	54
28	Spotless 45th ...	9 19 "	9 35 "	56	52	54
41	Thorby Lady Windsora ...	9 18 "	9 30 "	56	52	53
54	Barrington Lucy ...	9 20 "	9 35 "	56	52	54
71	Longhills Briar ...	9 22 "	10 2 "	56	52	54
72	Longhills Darlington 3rd ...	9 23 "	9 45 "	56	52	54
77	Spot ...	9 40 "	9 58 "	57	52	53
84	Fanny ...	9 47 "	10 7 "	57	52	54
104	Burton Amy 7th ...	9 47 "	10 12 "	57	52	54
106	Burton Ethel 8th ...	9 48 "	10 5 "	57	52	52
107	Burton Hempy 6th ...	9 55 "	10 25 "	57	52	54
108	Scothern Mystic ...	9 55 "	10 15 "	57	52	52
109	Scothern Merrymaid ...	10 0 "	10 35 "	57	52	54
110	Scothern Betty 3rd ...	10 0 "	10 30 "	57	52	52
111	Langford Castle 5th ...	10 2 "	10 20 "	57	52	54
113	Langford Norman 7th ...	10 12 "	10 36 "	57	52	54
115	Langford Queen 7th ...	10 17 "	10 35 "	57	52	52
117	Flamville Dairymaid 120th ...	10 12 "	10 45 "	57	52	54

BUTTER TESTS—BRITISH FRIESIANS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No of Days in Milk	Milk Yield			Butter Yield	Ratio, viz. lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Even	Total			Colour	Quality				
			lbs.				the ozs. lbs. ozs.	the ozs. lbs. ozs.	the ozs. lbs. ozs.								
131	Lord Rayleigh ...	Tertling Torch	1462	Nov. 25, 1917	1925.	29	29	527	0 36	51 10½	31.4	Good	Fair	26.50	—	26.50	
133	Lord Barnby ...	Eastern Nancy ...	1534	Sept. 5, 1917	Oct. 2	17	35	1331	0 66	131 11	39.6	Pale	Soft	27.00	—	27.00	
134	Lord Barnby ...	Walden Lena ...	1308	Oct. 17, 1917	Sept. 11	38	42	1032	0 74	102 1	36.2	Pale	Soft	33.00	—	33.00	
136	W. H. R. Gilbert	Knebworth Cesar's	1402	Jan. 10, 1919	Sept. 24	25	27	822	10 50	21 8½	32.6	Pale	Firm	24.50	—	24.50	
137	The Hache Herd	Rosebud Haydon Pax ...	1360	June 27, 1919	Aug. 28	52	39	528	13 68	23 1	22.2	Good	Soft	49.00	1.20	50.20	1st Prize
138	A. Allen ...	Glen Cameo ...	1341	Mar. 31, 1918	Sept. 28	21	23	621	11 45	11 10	27.7	Fair	Soft	26.00	—	26.00	
139	S. Pymman ...	Felthampton Susan	1417	Oct. 3, 1915	Aug. 5	75	41	1133	5 75	02 61	31.4	Pale	Soft	38.25	3.50	41.75	3rd Prize
141	B. Parkinson ...	Beebles Gloria ...	1527	Oct. 24, 1916	July 20	91	23	1320	0 43	131 31	35.9	Pale	Soft	19.50	5.10	24.60	
142	W. G. White & Sons	Muntham Troublesome	1334	June 12, 1919	Sept. 9	40	29	1427	10 57	81 11	34.1	Fair	Good	27.00	—	27.00	
145	F. Sykes ...	Brooklands Princess	1278	Nov. 10, 1918	Aug. 3	77	29	319	8 48	111 51	36.7	Good	Soft	21.25	3.70	24.95	
148	E. Furness ...	Hamel's Beryl ...	1376	Nov. 18, 1919	Sept. 29	20	38	1130	2 68	132 4	30.5	V. Good	Good	36.00	—	36.00	H.C.
151	I. B. & H. L. Jarmay	Bulkeley Helen of Troy	1262	Dec. 30, 1918	Sept. 30	19	34	830	6 64	142 5½	27.4	V. Fair	Good	37.75	—	37.75	H.C.

The Dairy Show Butter Tests of 1920.

BUTTER TESTS—BRITISH FRIESIANS—Continued.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield			Butter Yield	Ratio, viz. lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards								
							Morn.	Even.	Total			Colour	Quality												
			lbs.				lbs	ozs	lbs	ozs	lbs	ozs													
158	E. Hollingworth	Reddown Crocus 3rd	1432	Aug. 14, 1921	1925, Sept. 23	26	47	8	32	14	80	61	87	51	9	24	75	—	21	75					
159	C. W. H. Glossop	Land (imp. 1922) Blanche 22nd	1497	April 26, 1921	Sept. 25	24	24	3	24	0	48	3	2	51	20	5	37	50	—	37	50	H.C.			
160	C. W. H. Glossop	Land Juliet ...	1378	June 30, 1922	Sept. 18	31	32	0	24	11	56	11	14	30	2	Fair	Good	30	00	—	30	00	H.C.		
162	The Hache Herd	Hache Akkar Virtue	1602	Jan. 28, 1921	Aug. 5	75	21	14	25	5	47	3	2	41	20	8	Good	Firm	36	25	3	50	39	75	4th Prize
163	The Hache Herd	Hache Vespers ...	1456	Nov. 13, 1921	Sept. 4	45	30	10	30	8	61	2	2	51	25	9	V. Good	Good	37	75	0	50	38	25	R. & H.C.
164	B. Parkinson	Thurston Karel's Emily	1586	Dec. 5, 1920	June 17	124	38	0	25	3	63	3	2	51	27	2	V. Good	V. Good	37	25	8	40	45	65	2nd Prize
171	W. Twentymann	Winchester Musk	1334	Dec. 20, 1920	Sept. 29	20	39	14	35	2	75	0	1	71	51	1	Good	Soft	23	50	—	23	50		

BUTTER TESTS—BRITISH FRIESIANS—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time		Temperature			
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk, when churning finished
				Minutes.	Degrees	Degrees	Degrees
131	Terling Torch 13th	10 20 a.m.	10 52 a.m.	32	57	52	53
133	Eastern Nancy	10 20 "	10 35 "	15	57	52	52
134	Walden Lena	10 38 "	11 48 "	70	57	52	55
136	Knebworth Cesar's Rosebud	10 20 "	10 35 "	15	57	52	54
137	Haydon Pax	10 32 "	10 52 "	20	57	52	54
138	Glen Cameo	10 28 "	10 48 "	20	57	52	52
139	Felhampton Susan	10 47 "	10 8 "	21	57	52	53
141	Beebles Gloria	10 37 "	10 52 "	15	57	52	53
142	Muntham Troublesome	10 43 "	10 8 "	25	57	52	53
145	Brooklands Princess Flashlight	10 8 "	11 15 "	67	57	52	55
148	Hamel's Beryl	10 57 "	11 35 "	38	57	52	54
151	Bulkeley Helen of Troy	10 48 "	10 8 "	20	57	52	53
158	Reddown Circus 3rd	10 55 "	11 57 "	62	57	52	57
159	Lund Blanche 22nd	10 50 "	11 15 "	25	57	52	53
160	Lund Juliet	11 0 "	11 23 "	23	57	52	52
162	Hache Akkar Virtue	11 0 "	11 45 "	45	57	52	54
163	Hache Vespers	11 4 "	11 25 "	21	57	52	53
164	Thurston Karol's Emily	11 7 "	11 48 "	41	57	52	53
171	Winchester Musk	11 6 "	11 26 "	20	57	52	53

BUTTER TESTS—RED POLLS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield			Butter Yield Milk to lbs., viz., Butter	Colour and Quality of Butter.		No. of Points for Butter	No. of Points for Lactation	Total Number of	Awards
							Morn.	Even.	Total		Colour	Quality				
			lbs.				lbs. ozs.	lbs. ozs.	lbs. ozs.	lbs. ozs.						
211	Major J. A. Morrison, D.S.O.	Spalding Pearl ...	1176	April 2, 1919	1925. Sept. 14	35	33	528	8 61	131 15½	31·6	V. Fair	31·25	—	31·25	
212	Major J. A. Morrison, D.S.O.	Hutton Dahlia	1280	Sept. 24, 1919	Sept. 21	28	35	530	5 65	101 9½	41·6	Fair	25·25	—	25·25	
213	Major J. A. Morrison, D.S.O.	Harefield Ruth ...	1202	Feb. 18, 1916	Oct. 1	18	19	0 15	13 34	131 14½	18·1	Good	30·75	—	30·75	
215	W. Scrimgeour ...	Tendring Floss	1506	Oct. 1, 1916	May 11	171	25	320	2 45	51 10½	27·6	Pale	26·25	12·00	38·25	1st Prize
222	J. B. Dimmoek ...	Shotford Lady Mary 5th	1219	Feb. 22, 1922	Sept. 3	40	23	820	10 44	21 8½	29·1	Pale	24·25	0·60	24·85	
229	C. F. Newton ...	Saham Darker Draught	1306	Sept. 4, 1922	July 30	81	20	1420	5 41	31 10½	24·6	Fair	26·75	4·10	30·85	2nd Prize

BUTTER TESTS—RED POLLS—Continued.

No in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time			Temperature		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk, when churning finished
211	Spalding Pearl ...	12 4 p.m.	12 30 p.m.	Minutes 26	Degrees 57	Degrees 52	Degrees 53
212	Hutton Dalha 2nd ...	12 20 "	12 45 "	25	57	52	54
213	Harefield Ruth ...	12 10 "	12 55 "	45	57	52	54
215	Tending Floss 29th ...	11 55 a.m.	12 27 "	32	57	52	54
222	Shotford Lady Mary 5th ...	12 10 p.m.	12 30 "	20	57	52	54
229	Saham Darker Draught ...	12 17 "	12 36 "	19	57	52	53

BUTTER TESTS—AYRSHIRES.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	% of Days in Milks	Milk Yield			Butter Yield	Ratio, viz. lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	% No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Even.	Total			Colour	Quality				
							lbs	ozs	lbs	ozs	lbs						
252	Sir T. F. Buxton	Cathlins Belinda	1208	April 28, 1921	1925. Oct. 1	18 30	3 26	2 56	5 2	5	24.3	Good	Good	37.00	—	37.00	H.C.
253	Lt.-Col. R. E. Cecil, D.S.O.	Netherton Queen	1358	Jan. 28, 1920	Sept. 17	32 29	8 24	10 54	2 2	6	22.8	Fair	V. Good	38.00	—	38.00	H.C.
254	Major C. R. Dudgeon	Carven Holm Proud Lady 8th	1025	Feb. 3, 1921	Sept. 11	38 32	0 24	10 56	10 2	9 1	22.0	Fair	Good	41.25	—	41.25	R. & H.C.
255	Major C. R. Dudgeon	Grange Pansy 6th	1120	Mar. 4, 1917	Aug. 10	70 24	3 20	5 44	8 1	11 3	25.7	Fair	Good	27.75	3.00	30.75	H.C.
256	A. & A. Kirkpatrick	Dalpeddar Flora	1440	Mar. 2, 1917	Sept. 15	34 39	13 32	10 72	7 2	5 3	30.5	Pale	Fair	37.75	—	37.75	H.C.
257	O. D. Maxted	Rigg Rosie	1116	May 2, 1921	Oct. 2	17 31	8 29	11 61	3 1	4 1	48.3	Fair	Soft	20.25	—	20.25	
259	Q. Dunlop	Greenan Kate 6th	1069	Mar. 27, 1920	Aug. 26	54 29	8 22	3 51	11 2	8 3	20.3	Good	Good	40.75	1.40	42.15	3rd Prize
260	J. R. Miller	Midkellon Miss Brown	1103	Mar. —, 1917	Sept. 5	44 29	6 21	14 51	4 1	5 1	38.2	Good	Good	21.50	0.40	21.90	
261	T. Dunlop	Craigploch Cieve	1305	Feb. 20, 1916	Sept. 7	42 26	10 19	2 45	12 1	5 1	34.1	Good	Soft	21.50	0.20	21.70	
264	F. H. Sanderson	Round Bush Sunbeam 2nd	1402	Aug. 6, 1919	Sept. 18	31 34	14 28	2 63	0 2	3 1	28.4	Pale	Soft	35.50	—	35.50	H.C.
265	W. J. Thompson	Lesserbrook	1204	Mar. 15, 1918	Sept. 13	36 25	14 22	8 48	6 1	9 1	30.5	Fair	Good	25.25	—	25.25	
269	J. Johnstone	Millantae Mayflower	1316	April 3, 1917	Aug. 20	60 47	0 31	2 78	2 1	14	42.7	Pale	Soft	30.00	2.00	32.00	H.C.

BUTTER TESTS—AYRSHIRES—Continued.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Born	Date of last Calf	No of Days in Milk	Milk Yield			Butter Yield	Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Even.	Total			Colour	Quality				
270	A. W. Montgomerie	Thornhill Empress	1147	Dec. 16, 1919	Sept. 6, 1925	43	31	2 25	13 56	15 2	8 3	22 3	Pale	Good	40 75	0 30 41 05	H.C.
271	W. Adamson	Harleyholm Rosebud 2nd	1320	Feb. 27, 1920	Sept. 22	27	32	10 26	2 58	12 2	15 1	19 9	Good	Good	47 25	—	1st Prize
272	T. Logan...	Low Milton	1168	Jan. 31, 1918	Sept. 27	22	31	14 27	8 59	6 2	3 1	26 9	Good	Firm	35 25	—	H.C.
275	Mrs. H. Craufurd	White Swell Dunlop	1162	Jan. 19, 1921	Sept. 9	40	32	11 28	8 61	3 2	10 3	22 9	Pale	V. Firm	42 75	—	2nd Prize
276	Sir T. F. Buxton	Harpischoord Relief Mayflower 2nd	1046	Oct. 22, 1922	Aug. 17	63	18	6 15	13 34	3 1	8 3	22 1	Pale	Fair	24 75	2 30 27 05	H.C.
277	Sir T. F. Buxton	Low Milton Brenda	1155	Jan. 8, 1923	Sept. 28	21	17	14 14	8 32	6 1	9 3	20 3	Fair	Good	25 50	—	H.C.
278	Major C. R. Dudgeon	Cargen Holm Proud Lady 10th	912	Nov. 24, 1922	Sept. 14	35	23	5 18	2 41	7 1	14 1	21 8	Fair	V. Good	30 50	—	H.C.
279	Major C. R. Dudgeon	Cargen Holm White Stockings 10th	1109	Nov. 8, 1922	Sept. 26	23	24	0 20	10 44	10 1	14 1	23 7	Fair	Good	30 25	—	H.C.
280	Major C. R. Dudgeon	Cargen Holm Miss Robb 15th	972	Mar. 15, 1923	Oct. 1	18	24	13 19	8 44	5 1	11	26 2	Fair	V. Good	27 00	—	H.C.
284	T. Barr ...	Hobland Violet 4th	1208	Nov. 15, 1922	Sept. 11	38	19	14 18	11 38	9 1	6	28 0	Pale	Good	22 00	—	H.C.
286	T. Barr ...	Hobland Lucy 2nd	1181	Jan. 1, 1923	Oct. 1	18	18	2 15	8 33	10 1	2	29 5	Pale	Fair	18 00	—	H.C.

BUTTER TESTS—AYRSHIRES—Continued.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield			Ratio, viz., lbs. Butter to lbs. Milk	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Even.	Total		Colour	Quality				
			lbs.				lbs. ozs.	lbs. ozs.	lbs. ozs.							
287	J. Cochrane	Byreholm Viper	1310	Aug. 28, 1922	1925. Sept. 22	27 27	2 23	10 50	12 2	4 1	Pale	V. Good	36.25	—	36.25	H.C.
288	J. Cochrane	Byreholm Diamond	1025	Feb. 14, 1923	Oct. 1	18 22	10 17	3 39	13 1	8 1	Good	Good	24.50	—	24.50	
289	J. Cochrane	Byreholm Dazzler	1020	Dec. 18, 1922	Sept. 21	28 23	2 18	13 41	15 2	0 1	Pair	Good	32.25	—	32.25	H.C.
291	Mrs. H. Craufurd	Dunlop Sunlight	1248	Sept. 5, 1922	Oct. 4	15 18	0 15	8 33	8 1	10 3	20.2 v. Fair	Pair	26.75	—	26.75	
293	H. J. Clark	Kilfillan Fillet	1050	Jan. 30, 1923	Sept. 11	38 24	3 19	3 43	6 1	10 1	Pair	Good	26.50	—	26.50	
294	M. Sloan	Douglas Hall	1175	Oct. 25, 1922	Sept. 15	34 21	13 18	6 40	3 1	10 1	Pale	Good	26.25	—	26.25	
295	M. Sloan	Douglas Hall	1012	Nov. 16, 1922	Sept. 29	20 23	2 17	14 41	0 1	14 1	Pale	Firm	30.50	—	30.50	H.C.
296	A. W. Montgomerie	Janet Ann 2nd Lessnesseck Daisy Chain 4th	1200	Mar. 10, 1923	Sept. 10	39 26	0 20	0 46	0 1	14	Pale	Firm	30.00	—	30.00	H.C.

BUTTER TESTS—AYRSHIRES—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					Buttermilk, when churning finished
		Time		Duration of Churning	Temperature		
		Churning began	Churning finished		Dairy	Cream and Churn	
				Minutes	Degrees	Degrees	Degrees
252	Catlinns Belinda ...	2 22 p.m.	2 38 p.m.	16	57	52	52
253	Netherton Queen Greenfield 4th...	2 28 "	2 55 "	27	57	52	54
254	Cargen Holm Proud Lady 8th ...	2 20 "	2 37 "	17	57	52	50
255	Grange Pansy 6th ...	2 24 "	3 0 "	36	57	52	52
256	Dalpeddar Flora ...	2 30 "	2 53 "	23	57	52	53
257	Rigg Rosie ...	2 20 "	2 35 "	15	57	52	53
258	Gretna Kate 6th ...	2 30 "	3 40 "	70	57	52	56
259	Mickelton Miss Brown ...	2 23 "	2 40 "	17	57	52	52
260	Craigroblech Cieve ...	2 25 "	2 42 "	17	57	52	52
261	Round Bush Simbeam 2nd ...	2 20 "	2 35 "	15	57	52	53
264	Lesnescock Fannie ...	2 45 "	3 5 "	20	57	52	54
265	Millantae Mayflower ...	2 50 "	3 5 "	15	57	52	53
269	Thornhill Empress ...	3 25 "	3 45 "	20	58	52	53
270	Harleyholm Rosebud 2nd ...	2 45 "	3 0 "	15	57	52	53
271	Low Milton White Swell ...	2 28 "	2 53 "	24	57	52	53
272	Dunlop Harpsichord ...	3 10 "	3 50 "	40	58	52	53
275	Relief Mayflower 2nd ...	2 27 "	3 10 "	53	57	52	54
276	Low Milton Brenda ...	2 50 "	3 27 "	37	57	52	54
277	Cargen Holm Proud Lady 10th ...	2 24 "	2 50 "	26	57	52	53
278	Cargen Holm White Stockings 10th	2 50 "	3 10 "	20	57	52	54
279	Cargen Holm Miss Robbs 15th ...	3 5 "	3 20 "	15	58	52	52
280	Hobstand Violet 4th ...	2 53 "	3 12 "	19	57	52	51

BUTTER TESTS—AYRSHIRES—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time				Temperature	
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk, when churning finished
				Minutes	Degrees	Degrees	Degrees
286	Hobland Lucy 2nd	3 9 p.m.	3 45 p.m.	36	58	52	55
287	Byreholm Viper 2nd	3 5 "	3 50 "	45	58	52	55
288	Byreholm Diamond	2 45 "	3 40 "	55	57	52	55
289	Byreholm Dazzler	3 10 "	3 45 "	35	58	52	54
291	Dunlop Sunlight	3 15 "	3 40 "	25	58	52	53
293	Kilfillan Fillet	3 30 "	4 0 "	30	58	52	54
294	Douglas Hall Dandy Daisy 2nd	3 25 "	4 23 "	58	58	52	52
295	Douglas Hall Janet Ann 2nd	3 0 "	3 30 "	30	58	52	53
296	Lessnessock Daisy Chain 4th	3 30 "	4 40 "	80	58	52	54

BUTTER TESTS—GUERNSEYS.

Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of Last Calf	No. of Days in Milk			Milk Yield			Butter Yield	Ratio, viz. lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards		
					Morn.	Even.	Total	lbs ozs	lbs ozs	lbs ozs			Colour	Quality						
98. Viscount Falmouth	Tregothman May	1077	Mar. 19, 1917	1925. Aug. 8	72	15	13	13	8	29	50	10½	44·7	V. Good	Good	10·50	3·20	13·70		
99. Sir James Remnant, Bt., M.P.	Broom Flower 2nd	1192	Jan. 11, 1916	Dec. 28	205	8	6	13	11	22	11	6½	15·7	Good	V. Good	22·25	12·00	34·25	H.C.	
96. T. R. Bolitho	Tregoye Maze	1065	Sept. 26, 1919	1925. April 11	191	19	0	13	11	32	11	2	6½	13·7	Exc. V. Good	38·25	12·00	50·25	1st Prize	
97. A. Chester Beatty	Flossie of Bella Cottage	1084	Sept. 18, 1917	May 25	147	14	11	11	11	26	61	7½	17·8	V. Good	V. Good	23·75	10·70	34·45	R. & H.C.	
98. A. Chester Beatty	Cheminante of Cartaret	1016	June 5, 1918	June 20	121	18	2	13	3	31	51	8½	20·3	Good	Fair	24·75	8·10	32·85	H.C.	
99. W. Dunkels	Loulou of Goodnestone	938	July 12, 1920	July 11	100	17	8	13	2	30	10	1	8	20·4	Good	Fair	24·00	6·00	30·00	H.C.
12. Mrs. D. Corbett	Bighton Cairngorm	1013	Nov. 11, 1919	Aug. 30	50	17	8	12	8	30	01	5½	22·1	Good	Soft	21·75	1·00	22·75		
14. W. F. Trumper	Dahlia Polly 2nd	1116	April 7, 1918	Sept. 23	26	21	2	16	11	37	13	1	14½	19·8	Good	V. Good	30·50	—	30·50	H.C.
16. Sir James Remnant, Bt., M.P.	Southern Starette	1127	Dec. 10, 1920	May 2	170	18	0	14	2	32	21	8½	20·8	V. Good	V. Good	24·75	12·00	36·75	3rd Prize	
17. Col. Hon. G. Lawrence, K.C., D.S.O.	Tunworth Lamorran	878	May 30, 1922	Aug. 30	50	15	3	13	8	28	11	1	8½	18·5	V. Good	Good	24·75	1·00	25·75	

BUTTER TESTS—GUERNSEYS—Continued.

No. In Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of Last Calf	No. of Days in Milk	Milk Yield			Butter Yield	Ratio, viz. lbs. Milk to lbs. Butter	Colour	Quality	No. of Points for Butter	No. of Points for Lactation	Total No. of Points	Awards						
			lbs.				Morn.	Even.	Total	lbs ozs lbs ozs lbs ozs													
318	W. F. Trumper ...	Dahha Ruby ...	776	Nov. 24, 1920	1925. Oct. 4	15	13	14	7	14	21	12	1	2	19	4	V. good	V. good	18-00	18-00			
319	W. F. Trumper ...	Rangebourne	906	Oct. 4, 1921	June 14	127	12	13	11	2	23	15	1	2	20	7	V. good	V. good	18-50	8-70	27-20	H.C.	
321	J. B. Body ...	Rosie Morland Lady Richmond	1034	Feb. 15, 1921	June 10	131	18	6	15	14	34	4	2	3	15	8	Exc.	Exc.	34-75	9-10	43-85	2nd Prize	
322	Mrs. D. Corbett...	Hockley Ivy 2nd	872	Dec. 10, 1921	Aug. 10	70	23	14	19	0	42	14	1	14	21	6	V. good	V. good	30-75	3	00	33-75	H.C.
325	A. Chester Beatty	Cyrene's Clare ...	786	July 22, 1921	Sept. 1	48	23	5	16	0	39	5	1	2	33	7	V. good	V. good	18-75	0	80	19-55	
329	A. Chester Beatty	Calehill Peaceful	888	Feb. 14, 1923	July 23	88	20	3	15	10	35	13	1	3	29	8	V. good	Fair	19-25	4	80	24-05	
330	A. Chester Beatty	Calehill Sall ...	791	Jan. 13, 1923	Aug. 26	54	17	3	13	13	31	0	1	6	21	8	V. good	Fair	22-75	2	40	25-15	
336	W. F. Trumper ...	Rubella 2nd of Sarnia	770	Feb. 12, 1923	Aug. 30	50	19	0	15	14	34	14	1	9	21	7	V. good	V. good	25-75	1	00	26-75	

BUTTER TESTS—GUERNSEYS—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time		Temperature			
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk, when churning finished
				Minutes	Degrees	Degrees	Degrees
298	Tregothnan May ...	3 40 p.m.	4 5 p.m.	25	58	52	53
299	Broom Floweret 2nd ...	3 40 "	5 0 "	80	58	52	54
306	Tregye Maze ...	3 25 "	3 47 "	22	58	52	53
307	Flossie of Bella Cottage	5 12 "	5 35 "	13	58	52	55
308	Cheminante of Carleret ...	3 40 "	4 40 "	60	58	52	55
309	Loulou of Goodnestone ...	3 50 "	4 46 "	56	58	52	52
312	Brighton Cairngorm	3 50 "	4 52 "	62	58	52	55
314	Dahlia Polly 2nd ...	5 5 "	5 35 "	30	58	52	54
316	Southern Starctte	3 53 "	4 15 "	22	58	52	54
317	Tunworth Lanouran	3 54 "	4 30 "	36	58	52	53
318	Dahlia Ruby ...	5 10 "	5 50 "	40	58	52	56
319	Rangebourne Rosie	4 0 "	4 30 "	30	58	52	54
321	Morland Lady Richmond	5 5 "	5 40 "	35	58	52	54
322	Hockley Ivy 2nd ...	5 15 "	5 35 "	20	58	52	54
325	Cyrene's Clare ...	5 5 "	5 30 "	25	58	52	56
329	Calehill Peaceful ...	4 5 "	4 25 "	20	58	52	52
330	Calehill Sall ...	4 10 "	4 30 "	20	58	52	52
336	Rubella 2nd of Sarua ...	5 15 "	6 5 "	50	58	52	55

BUTTER TESTS—JERSEYS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield			Butter Yield	Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation.	Total Number of Points	Awards	
							Morn.	Even.	Total			Colour	Quality					
			lbs.				lbs	ozs	lbs	ozs	lbs	ozs						
337	Hon. A. A. P. Henderson	Windlesham Windflower	996	Feb. 6, 1920	1925. Sept. 18	31	27	2	25	0	52	22	0 $\frac{1}{2}$	25.5	(good)	32.75	—	32.75
338	F. B. Imbert-Terry	Blue Hayes Cat	880	Mar. 13, 1919	June 6	135	12	11	10	6	23	11	6 $\frac{1}{2}$	16.2 V.	(good V.	22.75	9.50	32.25
339	F. B. Imbert-Terry	Blue Hayes	339	Dec. 16, 1917	Feb. 13	248	16	5	15	3	31	8	2	14.2 V.	(good V.	35.50	12.00	47.50
341	E. A. Strauss	Sporran Derry's Fairy	992	May 16, 1916	Sept. 11	38	22	3	18	0	40	31	13 $\frac{1}{2}$	21.8	Fair	29.75	—	29.75
342	Mrs. V. Ames	Frostie 4th	922	Aug. 26, 1918	April 5	197	22	2	18	5	40	71	15 $\frac{1}{2}$	20.7	Fair	31.25	12.00	43.25
343	R. Bruce Ward	Miranda's Lass	838	Nov. 5, 1919	Mar. 10	223	20	14	15	6	36	41	14 $\frac{1}{2}$	19.2 V.	(good V.	30.50	12.00	42.50
344	R. Bruce Ward	Pirouette	968	April 3, 1920	May 19	153	24	0	17	3	41	32	7 $\frac{1}{2}$	16.6	(good	39.50	11.30	50.80
349	Mrs. Hayes Sadler	Eastfield Lady	1016	Oct. 5, 1919	Jan. 4	288	10	9	10	20	4	0	14 $\frac{1}{2}$	22.3	Fair	14.50	12.00	26.50
350	J. J. Hoyle	Lady Vedas 6th	974	Aug. 11, 1918	Aug. 29	51	23	2	18	2	41	42	4 $\frac{1}{2}$	18.1 V.	(good	36.50	1.10	37.60
351	G. Berry	Dewberry	912	April 7, 1920	July 10	101	24	2	16	14	41	0	15 $\frac{1}{2}$	20.8	(good	31.50	6.10	37.60
353	C. W. Hough	Dumlea's Fontaine	926	Dec. 14, 1919	Aug. 8	72	22	6	20	11	43	12	6 $\frac{1}{2}$	17.9 V.	(good	38.50	3.20	41.70
356	J. Pierpont Morgan	Tidy Mabel	934	Sept. 2, 1921	Aug. 24	56	24	3	21	14	46	1	2	20.1	Fair	36.50	1.60	38.10

BUTTER TESTS—JERSEYS—Continued.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield			Butter Yield	Ratio, viz, lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards			
							Morn.	Even.	Total			Colour	Quality							
357	G. Cross ...	Roberta's Star	926	Oct. 5, 1920	1925.															
358	H. C. Pelly	Remember Flo	802	Aug. 30, 1920	April 12	190	18	13	14	13	30	10	15	17-1	Good	31-50	12-00	43-50	H.C.	
359	H. C. Pelly	Symbol ...	822	June 3, 1921	Sept. 23	26	14	8	14	0	28	8	0	13-9	Pale	Fair	32-75	—	32-75	H.C.
362	R. Bruce Ward...	Philandra	829	Nov. 20, 1921	May 10	162	18	13	14	11	33	8	1	19-3	Good	27-75	12-00	39-75	H.C.	
366	Mrs. E. Watts	Essence Pride	854	Jan. 8, 1922	May 5	167	18	3	17	10	35	13	2	17-9	V. Good	32-00	12-00	44-00	H.C.	
367	R. W. Carson	Crystal Cid's	840	April 4, 1921	July 15	96	18	0	14	14	32	14	15	16-7	Fair	31-50	5-60	37-10	H.C.	
371	G. Berry	Postmistress	936	Jan. 23, 1922	Jan. 19	273	21	2	14	0	35	21	12	19-5	V. Good	28-75	12-00	40-75	H.C.	
378	C. W. Hough	Origa's Velva	706	May 18, 1923	Aug. 15	65	16	8	11	14	28	6	1	18-2	V. Good	Good	25-00	2-50	27-50	
381	R. Bruce Ward ...	Pavlova ...	907	Aug. 5, 1922	April 29	173	17	5	12	5	29	10	2	14-5	Fair	Good	32-75	12-00	44-75	R.&H.C.
385	W. H. Prescott	Frostie May	735	May 20, 1923	July 5	106	11	3	10	3	21	6	1	21-4	Fair	Good	16-00	6-60	22-60	
389	R. W. Carson	Benedicite	776	Mar. 19, 1923	Sept. 26	23	9	2	8	14	18	0	1	12-8	Fair	Good	22-50	—	22-50	
391	G. Berry	Last of the Danes	779	June 5, 1923	June 22	119	15	6	11	6	26	12	1	24-4	—	—	17-50	7-90	25-40	

BUTTER TESTS—JERSEYS—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE				
		Time		Temperature		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn
				Minutes	Degrees	Degrees
337	Windlesham Windflower ...	5 20 p.m.	5 35 p.m.	15	58	56
338	Blue Hayes Cat ...	5 40 "	6 15 "	35	59	54
339	Blue Hayes Spornan ...	5 20 "	5 45 "	25	58	54
341	Derry's Fairy ...	5 12 "	5 35 "	23	58	52
342	Frostie 4th ...	5 12 "	6 7 "	55	58	60
343	Miranda's Lass ...	5 50 "	6 40 "	50	59	56
344	Pirouette ...	5 25 "	6 20 "	55	58	54
349	Eastfield Lady ...	5 23 "	5 50 "	27	58	52
350	Lady Vedas 6th ...	5 46 "	6 45 "	59	59	52
351	Dewberry ...	5 30 "	5 50 "	20	59	52
353	Dumlea's Fontaine ...	5 30 "	5 55 "	25	59	53
356	Tidy Mabel ...	5 55 "	6 20 "	25	58	53
357	Roberta's Star 2nd ...	5 25 "	5 40 "	15	58	51
358	Remember No 3rd ...	5 56 "	6 40 "	44	59	51
359	Synbol ...	5 40 "	6 5 "	25	59	55
362	Philandra ...	6 0 "	6 23 "	23	60	54
366	Essence Pride ...	6 0 "	6 38 "	38	60	56
367	Crystal Cid's Freda ...	6 37 "	6 58 "	21	60	51
371	Postmistress ...	6 3 "	6 45 "	42	60	54
378	Origa's Velva ...	6 25 "	6 45 "	20	60	51
381	Pavlova ...	6 55 "	7 50 "	55	60	56
385	Frostie May ...	6 13 "	6 50 "	37	60	54
389	Benedicite ...	6 45 "	7 15 "	30	60	54
391	Last of the Danes 2nd ...	6 3 "	6 45 "	42	60	54

BUTTER TESTS—KERRIES.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield			Butter Yield	Ratio, viz. lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Even	Total			Colour	Quality				
394	Lady Fitzgerald	Buckland Peace	934	May 28, 1921	1925. Sept. 10	39	29	027	656	62 12½	20·1	Pale	Good	44·75	—	44·75	1st Prize
396	Brig.-Gen. L.L. Palmer	Coquet Gipsy	1056	May 12, 1917	Sept. 9	40	36	030	2·66	22 0½	32·6	V. Pale	Fair	32·50	—	32·50	H.C.
397	Kerry Estates, Ltd.	Valencia Eileen	955	Mar. 14, 1916	May	61	66	20 11 17	638	11 5	20·0	Fair	Soft	21·00	12·00	33·00	H.C.
398	J. W. Towler	Wadlands Fanny	965	Sept. 21, 1920	Oct. 4	15	24	221	545	72 0¾	22·2	Fair	V. Good	32·75	—	32·75	H.C.
399	J. W. Towler	Vaddy Mournemore	950	April 11, 1918	Oct. 3	16	18	219	337	52 6¾	15·5	Pale	Soft	38·75	—	38·75	2nd Prize
405	Capt. N. Zambra & C. Williamson-Milne	Hattingley High Kick	912	1919	May 19	153	18 11 15	033	111 6	033 11 6	24·5	Pale	Firm	22·00	11·30	33·30	3rd Prize
406	Capt. N. Zambra & C. Williamson-Milne	Buckhurst Elfin	847	Jan. —, 1915	Sept. 1	48	25	1421	647	41 10¾	28·2	Pale	Fair	26·75	0·80	27·55	

BUTTER TESTS—KERRIES—Continued.

CHURNING—TIME AND TEMPERATURE							
No. in Cate- logue	Name of Animal	Time			Temperature		
		Churning began	Churning finished	Duration of Churning Minutes	Dairy	Cream and Churn	Buttermilk, when churn- ing finished
394	Buckland Peace 2nd	6 15 p.m.	6 45 p.m.	30	60	52	51
396	Coquet Gipsy ...	6 50 "	7 10 "	20	60	52	54
397	Valencia Eileen 3rd	6 37 "	7 17 "	20	60	52	54
398	Wadlands Fanny ...	6 58 "	7 23 "	25	60	52	54
399	Vaddy Mourmemore	6 40 "	6 55 "	15	60	52	54
405	Hattingley High Kick	7 2 "	8 0 "	58	60	52	56
406	Buckhurst Elfin ...	6 22 "	6 40 "	18	60	52	54

BUTTER TESTS—OTHER BREEDS

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of Last Calf	No. of Days in Milk			Milk Yield		Butter Yield	Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
						Morn.	Even.	Total	Morn.	Even.			Colour	Quality				
187	SOUTH DEVON.	W. Hunt ...	1610	Sept. 2, 1916	1925.	April 13	189	16	11 12	10 29	51 13 $\frac{3}{4}$	15·8·V. Good	Fair	29·75	12·00	41·75	R.&H.C.	
189	G. Wills ...	Snowdrop 2nd ...	1632	June 22, 1919	Sept. 16	33	30	11 32	3 62	143 2 $\frac{3}{4}$	19·8·V. Good	V. Good	50·75	—	50·75	£3 Prize		
192	DAIRY SOUTH DEVON.	Feary Lady 2nd...	1492	June 20, 1919	June 17	124	24	5 18	3 42	82 4 $\frac{1}{2}$	18·9	Fair	Firm	36·50	8·40	44·90	£3 Prize	
200	DEVON.	Compton	1415	Sept. 22, 1920	Sept. 17	32	17	6 15	13 33	31 8 $\frac{1}{4}$	21 9	Good	Firm	24·25	—	24·25		
201	W. D. Chick	Happiness Lovely 4th ...	1348	May 5, 1918	Sept. 11	38	25	8 21	6 46	142 0	23·5	Good	Fair	32·00	—	32·00	H.C.	
202	W. D. Chick	Compton Holly ...	1235	Sept. 16, 1921	Sept. 27	22	23	10 19	8 43	22 2 $\frac{1}{4}$	20·0	Pale	Fair	34·25	—	34·25	R.&H.C.	
203	R. A. Clarke & Sons	Gentle ...	1258	Mar. 4, 1920	Oct. 6	13	27	5 21	11 49	02 0	24·5	Good	Good	32·00	—	32·00	H.C.	
204	R. A. Clarke & Sons	Lady 9th ...	1066	Sept. 26, 1921	Sept. 17	32	21	3 18	5 39	81 5 $\frac{1}{2}$	29·4	Good	Firm	21·50	—	21·50		
205	A. T. Loram	Janet ...	1408	1918	Sept. 14	35	28	14 25	11 54	92 3 $\frac{1}{2}$	24·7·V. Good	Good	35·50	—	35·50	£2 Prize		
206	A. T. Loram	May ...	1354	1919	Sept. 9	40	30	8 26	2 56	102 5 $\frac{1}{2}$	24·2	Fair	Good	37·50	—	37·50	£3 Prize	
207	J. H. Chick	Wynford Dahlia	1426	Jan., 19, 1921	April 8	194	15	0 14	2 29	21 1 $\frac{1}{4}$	26·9	Fair	Good	17·25	12·00	29·25	H.C.	

BUTTER TESTS—OTHER BREEDS—Continued.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield lbs. ozs.	Ratio viz. lbs. Milk to lbs. Butter	Colour and Quality of Butter	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Award
							Morn.	Aftn.	Even.	Total							
							lbs. ozs.	lbs. ozs.	lbs. ozs.	lbs. ozs.							
	ANY BREED	MILKED THREE TIMES DAILY															
426	Lord Rayleigh ...	Terling Sky 8th	1558 lbs.	Jan. 23, 1916	Sept. 23, 1925.	26	21	523	10	20	645	51 10	40.2	Pale	Good	26.00	—
427	Capt. J. Thompson	Baswick Bloom	1296	April 13, 1918	Sept. 26	23	32	825	5	24	281	15 13	45.2	Pale	Soft	29.00	—
432	H. G. Howard ...	Pilsca Spider ...	1418	—	Sept. 25	24	22	219	6	17	358	11 1	35.1	Good	Good	26.75	—

BUTTER TESTS—OTHER BREEDS—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE				
		Time		Temperature		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn
				Minutes	Degrees	Degrees
187	Milkmaid 9th	11 17 a.m.	11 56 a.m.	39	57	53
189	Snowdrop 2nd	11 35 "	12 0 p.m.	25	57	53
192	Perry Lady 2nd	11 34 "	12 7 "	33	57	53
200	Compton Happiness	11 21 "	11 52 a.m.	31	57	54
201	Lovely 4th	11 40 "	12 10 p.m.	30	57	54
202	Compton Holly	11 50 "	12 5 "	15	57	53
203	Gentle	11 34 "	11 55 a.m.	21	57	52
204	Lady 9th	11 40 "	12 5 p.m.	25	57	54
205	Janet	12 0 p.m.	12 25 "	25	57	54
206	May	12 17 "	12 35 "	18	57	50
207	Wyntford Dohla	12 15 "	12 42 "	27	57	54
238	Bramshall Joan	12 18 "	12 41 "	23	57	53
239	Bradbourne Marigold	12 20 "	12 33 "	13	57	53
241	Pike Verocity	12 25 "	2 40 "	15	57	52
242	Bradbourne Giddy Girl	12 25 "	12 55 "	30	57	51
243	Pike Venice	12 30 "	12 38 "	8	58	52
248	Mwynng Humod	12 38 "	12 55 "	17	58	51
251	Hall Green Gift	12 41 "	12 53 "	12	58	54
418	Barrow Bee 6th	7 3 "	7 35 "	32	60	56
420	Bridesmaid	6 55 "	7 55 "	62	60	56
421	Just Found of Hookstile	6 57 "	7 24 "	27	60	55
426	Terling Sky 8th	7 5 "	7 30 "	25	60	56
427	Baswich Bloom	7 5 "	7 35 "	30	60	54
432	Pitsen Spider	7 15 "	7 35 "	20	60	55

NEW INVENTIONS, DAIRY SHOW, 1925.

By J. GILLARD STAPLETON.

THE number of entries in the Inventions Class this year was considerably in excess of the usual, being 51 in number, and in consequence, the Judges for these had a very busy time.

Many of the entries could scarcely be classed as new inventions, and others were not of sufficient merit to justify any particular examination, and a preliminary elimination was made in consequence, and those entries which appeared to provide for the equipment of the Industry under what might be described as conditions which are rapidly passing and giving place to more enlightened methods, were cut out of the list.

The Judges wish to report that among the entries were inventions which had no relation to each other, and between which no comparison could be made, and which, therefore, provided no common ground upon which to base a scale of points for the Judges to work to.

It is true that this class includes "any invention," and that some such class will probably always be necessary, but it appears to the Judges that the number of entries contained therein might be reduced if consideration were given to the creation of some new classes, and if such new classes were introduced at future shows, the Judges would feel more confident in dealing with a position which as now existing is somewhat complicated.

The Judges further felt that no just opinion could be given upon the merits of some of the entries without proper trial over a sufficient length of time. It is not possible to undertake such trials at the Show, but if the entries were known sufficiently early, arrangements might be made by which a more considered opinion concerning their merits could be obtained.

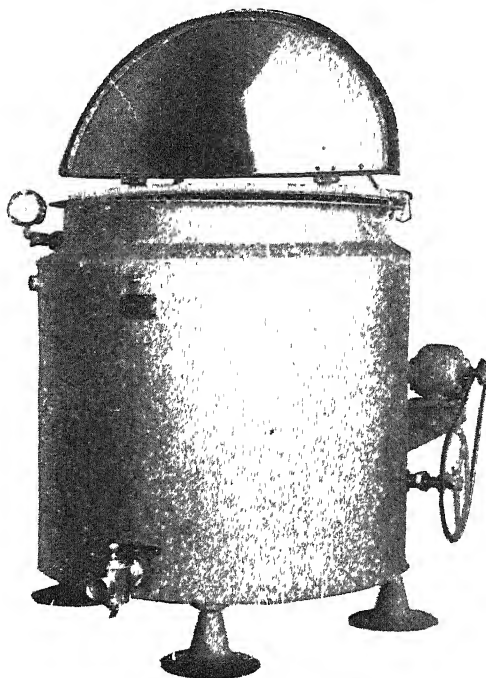
If the Council of the British Dairy Farmers' Association decides to take action in these matters, the Judges will be only too happy to give every assistance, but it would necessitate the examination of the particular entries under practical working conditions.

Many of the entries were exhibited by reason of some improvement in detail that might justify an award, in fact, quite a large percentage were of this class.

Fewer awards have been given this year, in spite of the increased number of entries, and the reason for this is probably due to the fact that many exhibitors do not realise to the full what is necessary to meet the requirements of the Industry in the immediate future, and

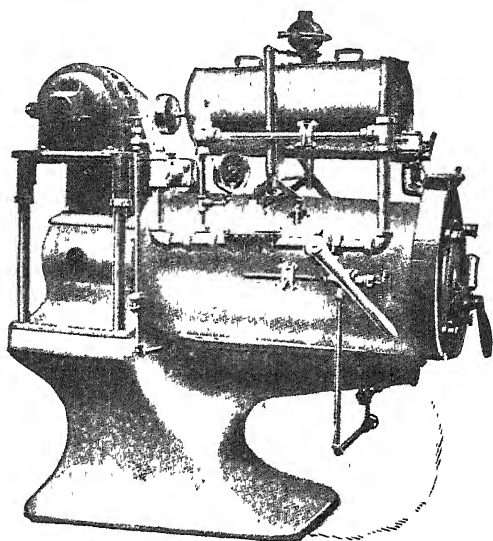
do not appear to fully comprehend what very rapid progress is being made by the Industry.

Taking the awards in detail, we first come to the Glass-lined Pasteuriser. This exhibit is essentially an apparatus designed to meet the latest requirements of the Industry in many directions. It is sanitary in construction, easily cleaned, and can be used for storage, pasteurising, retarding, and cooling milk, and will carry out the latest requirements of the Ministry of Health. The one weak point of this exhibit was the gland through which the agitating fan had to pass from the drive to the interior of the Glass-lined Pasteuriser, and which was obviously a point where the elimination of contamination would prove in practice to be almost impossible. This could be avoided if the agitating fan was passed through a gland at the top of the pasteuriser, as then milk would never come in contact with the gland.



GLASS-LINED PASTEURISER.

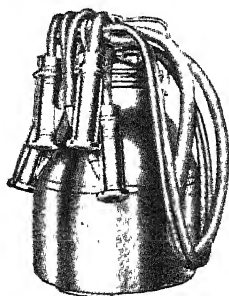
The "Goliath" Heavy Duty Ice Cream Freezer is very massive in construction, the freezing chamber being constructed to avoid metallic contamination, there being no soldered joints. The automatic control of the quantity of mix discharged into the freezing chamber is a very good point, so also is the provision made for inspection during operations. The correct circulation of the mix in the freezing chamber is also efficiently provided for.



"GOLIATH" HEAVY DUTY ICE CREAM FREEZER.

The "Louden King" Tubular Steel Stanchion for cows is excellent in construction and design, and allows additional freedom of movement for the animals, which is a good feature.

The "Louden King" Individual Automatic Drinking Fountain is a fitting of thoroughly good design to provide cows, when housed, with an ever-ready supply of uncontaminated water, and equipment of this kind will undoubtedly increase milk production, as the cows always have access to fresh clean water which adds greatly to their comfort and obviates the dangerous possibility of cows drinking very large quantities of ice-cold water during the winter months, which will often happen when long intervals elapse during which no water is available.



"ALFA LAVAL" MILKING MACHINE.

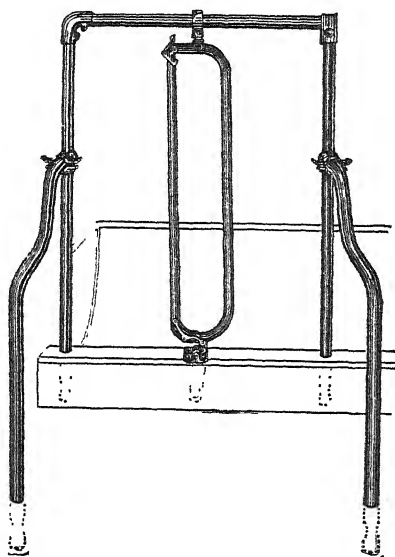
The "Alfa Laval" Milking Machine is especially noticeable by reason of its direct action on the mammary glands, and it secures a full flow of milk without discomfort to the animal; also the teat cups do not drop off when the pressure is released, features not common in most other machines of this sort.

The "Clayton" Milk Bottle Filling Machine is different from other machines of the same type by reason of the elimination of the tendency for the milk to leak into the bottles after they have been correctly filled when the

spindles begin to wear, and this is secured by a flange attached to the spindle of each filling cup which, when the cup has discharged its contents into the bottle, comes flush down on to the base of the milk container and prevents excess quantities of milk leaking through between the cup spindle and the stem through which it works.

Beatty Bros. Sanitary Steel Cow Stall is quite well designed and strong in construction, and it was difficult to decide between this and the "Louden King" fitting of a similar type.

In conclusion, it would be advisable to give the Judges a schedule of all entries in this class, and to afford them an opportunity of making a full investigation of any of them before the opening of the Show, it being left to their discretion as to which entries they would desire to so examine.



"B. T." SANITARY STEEL COW STALL.

POULTRY SECTION—DAIRY SHOW, 1925.

By R. FLETCHER HEARNshaw, F.Z.S.

THIS section was once again a most successful one, and the quality was, without doubt, taken all round, very high. The entries in the Live Poultry were about 200 less than the previous year, but the Table Poultry was probably the largest and best section ever seen at this Show.

Mr. W. S. Brocklehurst is to be congratulated on the very able way he presides over the Poultry and Pigeon Committee, and he is well supported by a very strong committee of breeders who have the best interests of this great and model Show at heart, the one desire each year being to maintain and keep the Dairy Show the best managed Show of the year. This management is thoroughly appreciated by the way the exhibitors rally round with entries and attend in such large numbers, for there is no Show in the year where one finds so many exhibitors attending as we do at the Dairy Show, and one face they are all glad to see when they come, and that is Mr. Richard Kirk, who has acted as Steward for so many years, and let me say here how much his work is appreciated.

On the first day of the Show 23 Stewards waited on the Judges, and all the award cards were quickly placed on the pens very soon after the slips had been collected from the Judges, all being ready for the opening time at one o'clock.

Messrs. Spratts Patent, Limited, did the penning and feeding in a most able manner, and many of the birds looked better at the end of the Show than they did when they arrived, which is a great tribute to the well-known firm. According to rule, the Scotch and Irish were dispatched early at the close of the Show, the last being booked out at 6.35 p.m. on the Friday, so that they could get home in good time.

Mr. B. Ravenscroft and his good assistant, Mr. F. J. Bull, carried out the secretarial work in a most efficient manner, both being past masters at the game.

The Championship for the Best Bird in the Show went to a lovely dark Dorking cockerel shown by Mr. Charles Aitkenhead, and it was nice to see such a typical specimen of the good old breed coming out on the top once more.

The popular Vice-Chairman of the Poultry and Pigeon Committee, Mr. W. J. Golding, was the runner-up with his wonderful Buff Orpington cockerel, a bird that was shown on tip-top form.

The weather was mild, and the galleries got very warm with the birds and the large attendance of the public, but everyone seemed very happy, and many old friends met again and compared notes on the past breeding season, many new friends were made and many old friendships were renewed, for the social side Dairy Show week amongst poultry breeders is the event of the year. The three dinners promoted by the Poultry Club, the National Utility Poultry Society, and the Scientific Poultry Association were all well attended, and they made very pleasant social evenings and brought those attending the Show together in friendly intercourse.

The Poultry Club Room, as usual, at the top of the stairs on the gallery was well patronised, and much appreciated by the members of the Club. The S.P.B.A. and the N.U.P.S. both had very attractive stands and the large interest taken in both speaks well for their future success. Space is still limited, so that the classification has to be limited to fit the available space, therefore, those breeders who do not get classes included for their own special breeds must console themselves by knowing that only the most popular breeds can be included in the schedule.

The Judges for this event are very carefully selected, and this year they seemed to give general satisfaction.

Two classes had to be cancelled as they did not receive enough entries to stand. One was the White Orpington cockerels, and the other the Black-red Old English Game Bantam cockerels.

The Sales were held as usual on the second morning in the old spot on the gallery, and Mr. Walters was again the auctioneer, and no one can sell poultry better than him, because he knows the points of the birds. Prices on the whole were not so large as they have been often in the past, but many birds were sold, especially in the Selling classes.

The attendance of breeders at the auction was big, as many come to the Dairy Show to buy what they want for the coming breeding season. Some of the best prices were Mr. F. G. Denner's Rhode Island Red pullet, £26; Mr. W. M. Davies' Speckled Sussex cockerel, £15; Mr. T. Vincent's Light Sussex cockerel, £12 12s.; Captain Franklin's Croad Langshan cockerel, £10 10s.; Mr. J. Beesley's Modern Black-red cockerel, £10; Mr. Andrew McKinnell's Barnevelder pullet, £5; Mr. Edwards' Brown Leghorn pullet, £7 7s. 6d.; Rev. J. Hewitson's Indian Runner, £5 5s.; The Hon. Mrs. Coventry's White Turkey cockerel and pullet, £10 10s. each; Messrs. Huntley & Sons' Aylesbury drake, £7 10s.; Lord Dewar's Minorca cockerel, £5; Mr. W. M. Bell's Black Orpington cockerel, £5; and many others were claimed in the Selling classes.

* The auction sales of the large entry in the Table Poultry were highly satisfactory. Mr. Thomas Sutton's First Prize pair of Sussex cockerels made £5 5s.; Messrs. E. G. Grant & Co.'s First Prize pair of Sussex pullets made £4 15s.; Colonel Humphrey Watts' First Prize

pair of cross-bred Indian Game and Orpington cockerels made £5 10s. ; and the general average for all the birds in the open Table Poultry classes was £1 15s. 6d. per couple, which was splendid.

The Table Poultry and Eggs, the Judge said, were one of the best collections that he had ever seen at the Dairy or any other Show, and this speaks volumes coming from a man of such a long and varied experience.

H.R.H. The Prince of Wales, K.G., was a successful exhibitor in this section, taking third prize in a big class of 34 exhibits in tinted eggs. Both the white and the brown eggs were wonderful classes, the whites having 29 entries and the brown 27.

The *Light Sussex* cockerels and pullets were two wonderful classes for table purposes, containing as they did 29 cockerels and 22 pullets.

The *Petits Poussins* were not a large entry, but quite a novelty, and much interest was taken in them by the spectators.

The *Ducks* and *Goslings* made a very nice display, but were not so numerous.

It is a pleasure to state that no late entries are accepted in this section at the Dairy Show, so that the best resolution that exhibitors can make for 1926, if they wish to be exhibitors in the Poultry Section this year, is to make their entries by return post when they get their schedules, for space will again be limited, entries will be closed when the available space is full, and all late entries will be returned.

Lt.-Col. E. W. Caddick was very pleased to see such a keen interest being maintained in the Table Poultry and Egg Section at the last Show, as for many years he has acted as Chief Steward in this section in a most able manner, and the wonderful response is a tribute to his good management here.

The *Table Pigeons* were a small class and only contained five entries.

The Live Utility Poultry Section was once again a huge success, the seven classes provided containing 431 entries against 395 entries in five classes last year, and the three Judges had a busy time sorting them out again. Breed characteristics received good consideration, and some really fine quality birds were seen that were free from coarseness and had good laying properties. The quality throughout was of a very high order that necessitated many really good birds being left out of the money. In fact, suggestions were made that more prizes should be offered in these classes considering the large entry that is made each year, but on the other hand, from the Show's point of view, it is the big classes that help to pay for the small ones.

The *White Wyandottes* were a grand lot, and all penned single tier, made an attractive display with an entry of 88 in one class, and the *White Leghorn* pullets had an equal number, and they were a very nice lot.

Black Leghorns had 28 entries; and the *Australorps*, the weakest class for numbers in the Utility Section, contained 24.

The *Rhode Island Red* pullets we thought were a fine collection of 63 birds, and much improvement was seen in colour, type, and texture on those seen in Utility classes at recent Dairy Shows.

Light Sussex were fully justified in being allotted a separate class, for the entries totalled 86, and some splendid birds were penned. The winner in this class taking the Silver Medal for the best Utility.

The *Any Other Variety* Class contained 57 pullets of many useful Utility breeds, such as Brown Sussex, Barnevelders, Anconas, Red Sussex, Buff Plymouth Rocks, Columbian Wyandottes, Brown Leghorns, Minorcas, and several others.

H.R.H. The Prince of Wales, K.G., took second prize in this section with a beautiful Rhode Island Red pullet that was much admired.

Dorkings made an attractive display, and on the whole were better than those seen here of recent years, the winning dark cockerel taking the special for the best bird in the Show, and he was worthy of it. Size, type and quality were prominent in the winners, with pure legs and feet. Several pens were empty in these classes, in fact, only four dark pullets were penned out of eight entered, the first and second winners in these classes being very typical specimens.

The Silver Greys, taken as a whole, were not so good as the Darks.

Croad Langshans came up well with 64 entries against 58 last year. Some of the exhibits were outstanding, especially the first and second cockerels, and the whole lot of this breed showed wonderful improvement, both in type and colour. This breed lays a rich coloured egg, and for that reason alone is always in good demand with those who prefer a breed that lays a rich brown egg.

Brahmas again had four classes with only 19 entries in all, probably accounted for by the bad breeding season. With this breed the Light pullets were undoubtedly the best class, the winners being excellent specimens of their breed, the Dark pullets standing first and second were really good birds and not much between them, in fact, either could have won.

Cochins came up better with 20 birds in two classes, and they contained some very promising chickens, especially in Blacks and Whites. The winning Black pullet took the Medal for the Best Brahma or Cochin, and hers was a popular win for she is the best Black chicken seen out for some years. Several nice *Partridges* were shown, but they were rather young.

The *Sussex* once again came forward in large numbers, and still seem as popular as ever. The Light cockerels, with 75 entries, and the Light pullets, with 94 entries, were two wonderful classes for

quality, for the same exhibitor to win these two great classes was a wonderful thing, and he is to be congratulated on producing two such good chickens. Six money prizes were again offered in these two classes, and this was greatly appreciated by the exhibitors.

Red Sussex were a grand lot, the cockerels were a fine even-coloured lot of true Sussex type, and the pullets were far better in colour than those seen the last year or two.

Speckled Sussex were not so good in cockerels as one expects to see at this Show, but on the other hand the pullets were a grand lot, and the winner took the Medal for the Best Sussex. She was a beauty. In fact, very near perfection.

Brown Sussex were a great improvement on previous years, especially the pullets, which were more uniform in colour.

The *Sussex* Selling Classes were well supported, and it was a great improvement in these to separate the Lights from the rest, an innovation that was much appreciated.

Faverolles had two classes, and were the strongest in quality seen at this Show for some years, the chickens were very forward and in good condition. Both the classes this year were for Salmon Faverolles, and to find an entry of 25 in this one colour was very satisfactory.

Wyandottes as usual were one of the strongest sections, the Whites as usual heading the classes for number of entries with 45 cockerels and 60 pullets. They were well judged, and the winners here again appreciated having six money prizes in these two classes. The winners in these two classes were grand birds, beautifully shown, and a credit to the poultryman who put them down so fit. Taken throughout, the shape and colour was good and the chickens nicely forward.

Silvers came up well with seven cockerels and 20 pullets, and we had quality also in the Silver pullets. They were, indeed, a grand lot.

Golds were a nice collection, and for richness of colour they were equal to anything seen here for some years.

Blacks were a nice even lot, 19 cockerels and 26 pullets being a good entry, but although coming rapidly popular again, we did not think that they were as good in type and colour as we have seen here in the past.

Columbians again had a good entry, but there was nothing really outstanding amongst them, and the chickens as a whole were backward, many of them requiring time to make up properly.

Partridge Wyandottes made a very pretty display with 24 entries in the two classes. The winning pullet was a beauty and much admired.

Orpingtons, with eight classes provided for them, could only muster 100 entries, very different to the old days when they used to be one of the largest sections of this Show and some of the biggest classes

in the Show. As a breed they are very beautiful, but not very fashionable at the moment.

Blacks were nice classes with 15 cockerels and 17 pullets. Both classes contained birds of good average merit and many future winners.

White Cockerels were cancelled, and only 10 pullets were entered. These were a nice lot for shape and colour, and fairly forward.

Bufs had 27 birds in the two classes this time, against 37 last time. The two winners were beauties, and splendidly shown, the cockerel being runner-up for the best in the Show.

Blue Orpingtons had a good entry, ten cockerels and 17 pullets, and at the moment it appears that there is more interest in this colour. The cockerels were rather varied in colour, but much improved in type. The first three pullets were good, especially the winner. In type and lacing the second was very promising, but younger.

Rhode Island Reds were a wonderful lot. 85 single-comb cockerels and 106 single-comb pullets were truly a wonderful collection, and a great testimony to the popularity of the breed to-day, many new names appearing in the catalogue, which means many new recruits. The cockerels in the single combs were not as good as the pullets, but for all that they were a wonderful lot.

Rosecombs had 18 cockerels and 23 pullets, and here again the pullets were the best class, although the winning cockerel was a gem.

Barnevelders, one of the most popular breeds in this country to-day, were included in the schedule for the second time, and the two classes contained 94 birds against 67 last year, thus showing how popular they are becoming, for both exhibition and utility, the same type and colour being suitable for both purposes, the pullets lay the wonderful brown eggs, and the cockerels make such splendid table birds.

A most useful breed for the farmer to take up as they are so hardy.

Anconas made a good show with 20 cockerels and 39 pullets, the Medal going to the winning pullet. She was very forward and quite at her best. The winning cockerel was stylish, good colour and tipping, neat head, legs, and condition.

Frizzles are always quaint and interesting, and the class provided for them contained two more entries than last year. They were well-curved birds of various colours. They are very good layers and very hardy.

Polish had one class guaranteed by the admirers of this good old breed, and six entries were made in it, Silvers being first and second, and a nice Gold third. An effort is now being made to revive this breed again. They are still very popular on the Continent, and classes fill well there.

Old English Game, with a popular Judge, filled well, the quality

of the Black-red cockerels being especially good. The heart-shaped frame, broad muscular chest, bequeathed to the Old English Game Fowl by the selection of generations of Cockers, is still in evidence. This breed makes an excellent bird to cross for table purposes, being better layers than Indians.

Minorcas had less entries than last year, although the quality was very good. The winning cockerel was a typical grand headed bird, and he took the Medal, and the pullet was a good headed nice-coloured bird, well shown.

Andalusians, with 15 cockerels and nine pullets, made two good classes. The winners were well laced, on good sound ground colour, with good head points, and although an old breed, are still fairly popular in many districts.

Leghorns are still as popular as ever, and the ten classes provided for them had a splendid entry, and we found no extremes in this breed compared with what we have seen exhibited in past years, and we congratulate Leghorn breeders on getting back again to more typical birds, more like we used to see before the requirements of the exhibition birds went to such extremes.

Browns made a splendid show. The cockerel class contained 16 birds and the pullets 10, the winning cockerel taking the Medal. And he was a beauty.

Whites filled best for numbers, with 26 cockerels and 24 pullets, and here, again, the cockerels were by far the better lot, the winner standing right away, being shown to perfection.

Blacks came up nicely, with 23 cockerels and 22 pullets. We thought they were a very representative lot, with nothing really outstanding.

Exchequers filled well, with 17 cockerels and 19 pullets. Here the Judge favoured the Utility type, and the winners were all very useful looking birds.

The two classes for Any Other Colour had an entry of 30 entries, and contained some very attractive birds in both classes nice coloured.

Bufs were first, and it is a wonder more exhibitors do not take up this variety. The remainder of the money prizes going Duckwings.

Plymouth Rocks continue to be as popular as ever, and have always been a favourite breed with both the farmer and the fancier, and again, with a popular Judge, the entry was a great one.

Barred, with 26 cockerels and 33 pullets, lead the way. The cockerels were very good in size and type, and with the winners the colours were good, both black and white and the bars nice and distinct. After the winners the colour was not so good, but size and shape was good all round. The pullets were a really good class, the

winners being very good indeed, the best seen at this Show for quite a long time. They had good type and nice even colour well barred.

Bufs showed a great improvement, with 28 in each class. The cockerels were a really good lot, with size, type, and colour of the best. The pullets, too, made a good show, though as a class they were hardly equal to the cockerels, but were very shapely and nice coloured birds.

The *Any Other Colour Rocks* were 20 in two classes, and the winners were Whites, but not as good as have been seen here in past years.

Buttercups had 19 cockerels and 23 pullets. This breed does not seem to make many new friends, and most of the old exhibitors of the breed filled the two classes provided for them.

*Silkie*s were the best lot ever seen at the Dairy Show, the 23 birds in each class being a record entry for the breed at this event. They are a most useful breed, being good layers and splendid mothers for chicken rearing, and when crossed with small Wyandottes make ideal birds to use as sitters. There is a tendency in the hens to-day to get the crests rather too heavy over the eyes, and this must be guarded against; also some cocks are inclined to have horns on the combs, which is not desirable. The winners were nice typical birds of this the smallest breed of Fowl. Please remember that *Silkie*s are not Bantams as some would suppose. These classes always attract the general public's admiration.

Indian Game, with 34 cockerels and 35 pullets, made a wonderful show, the cockerels were the better class, and we thought well-selected, but the ground colour and the lacing in the pullets was truly wonderful, and shows to what extent the breeders art has developed, combined with good size and shape, and it all goes to show how well these chickens grow in the West of England, where for so many years many of the best specimens of this breed have been bred and reared.

Campines had four classes provided for them, and the Silvers made a most attractive display with 25 cockerels and 23 pullets. The cockerels were a nice lot, with plenty of quality, and the breed is a most useful egg-producer. Gold, although not so popular, only 18 birds in the two classes, made a good display, and for quality were some of the best seen at this Show.

Bresse came up well with 14 cockerels and 14 pullets. For quality, as usual, the Blacks were far superior to the Whites in active graceful carriage, neat heads, and furnish of feathering, and probably it would be better for both if the colours could be divided in future.

The *Any Other Variety* Classes are always full of interest at this event for they usually contain many quaint and rare birds.

One would imagine, after the extensive classification given, that very little would be left for these classes, but the cockerels contained 20 birds made up of the following varieties: Australorps, Langshans, Sultans, Rhode Island Whites, Buff Sussex, Houdans, Black Marias,

Red Dorkings, Jubilees, Malayas, Modern Game, Jersey Black Giants, and White Pheasant Fowls. The winner was a beautiful Modern Brown-red Game, the second a Buff Sussex, and the third a Red Dorking. In the pullets the winner was a Red Malay, second a Jubilee Indian, and third a Buff Sussex.

Breeding Pens, as usual, made a splendid display, and exhibited, as they are in trios, they are full of interest to the breeders present at the Show. We have seen greater numbers exhibited, but we thought the quality was of the very best, and popular varieties did the winning.

In the section for Rocks, Wyandottes, or Orpingtons, White Wyandottes came out on the top, and a wonderful trio they were, shown in grand form. The second prize also went to the same variety, and the third prize to a beautiful trio of Buff Orpingtons, wonderful shape, bone and colour.

In the *Any Other Variety Breeding Pens* only 17 were entered, against 39 last year. Minorcas were first, and they were a grand lot. Typical massive Indian Game made a good second, and the third were very nice Brown Sussex. Other Varieties shown in this class were Light Sussex, Buttercups, Langshans, Rhode Island Reds, Buff Sussex, Houdans, &c.

The *Selling Classes* came next in the schedule, and contained many good birds and many bargains, and many future winners were purchased in them.

The *Waterfowl* Section is always full of interest, and this year was no exception. Rouens were not so strong in numbers, but contained some very good birds. The winners stood out for size and soundness of colour, in fact, even to-day, with all the newer varieties, there is nothing so pretty as a good Rouen.

Aylesbury Ducks made a grand show with a good entry, the winning drake had great size with a beautiful head and bill, but not quite up in feather. The Duck class produced the Medal winner. She was of good size and shape, and won over the Drake by her splendid condition. Several good ducks were in the moult, or some of the awards would have been altered. Indian Runners were strong classes, and type and colour were excellent. Buff Orpington Ducks came up well, and a class for Magpie Ducks had a fair entry, although at present this breed does not seem very popular. The Black East Indians were a pretty lot, and the winner stood out for type and richness of colour. Khaki Campbells still seem very popular and made a good show.

Any Other Variety, as usual, had a strong entry of 26, and here we found a grand shaped Pekin of nice size and colour winning, with last year's winning Muscovy second, and a good Cayuga third.

Geese had 21 entries in two classes, against 37 last year, but the quality was very good, and the Medal winning Toulouse Gander was extra well grown and of nice colour; he also carried off the Ring of the Waterfowl Club. Embdens were more typical than usual, being very free from keel and gullet.

Turkeys again made a strong section, and the four classes provided for them had a good entry. The Bronze still seem more popular than the Whites.

Bantams still form one of the most attractive sections of the Show, and no section receives greater admiration from the general public, and there is no doubt that they do bring many more people in through the turnstiles to see them. To-day, they are in many cases, the exact miniatures of the larger breeds, and for any large breed to become popular it at once becomes reproduced in miniature. We have already seen Barnevelder Bantams, and some pretty White Leghorn Bantams have been shown at times. Modern Game Bantams had eight classes provided for them again, and they were a grand collection. In Black-reds, the 26 cockerels and the 25 pullets were the two best classes seen here for years. Piles were also strong, especially the cockerels, and the Duckwings were a grand lot. In fact, the pullets were equal to anything seen here for some years.

In the Any Other Colours the winners were mostly Birchins and Brown-reds. Old English had six classes provided for them and contained a grand lot of birds, and they were judged very well indeed. The Medal went to the winning Spangle cock, and he was a beauty, it being a popular win.

Variety Bantams again made a great display, and were well penned, and could be seen to advantage. Black Rosecomb cocks had 16 entries, and were much better than the hens for quality.

Minorca Bantams had a class and seem as a breed to be making headway. Pekins made two good classes, and Sebrights were very strong, especially the two classes for Silvers, containing, as they did, 28 birds. Japanese, Frizzles, and Polish made a nice show, although we find a very few new names amongst the exhibitors in these breeds.

Wyandotte Bantams, for both exhibition and utility, are daily becoming more popular, and here we saw some of the best birds in this section, especially in the Whites, with 13 cocks and 20 hens, which were wonderfully well judged, the winning hen being a beauty and well shown.

Belgian Bantams are not so popular and had 25 entries in two classes. Hamburgs were a poor entry, only seven being shown in cocks and 12 in hens. Indian Game Bantams were a wonderful lot, the 17 hens making a fine display.

Any Other Variety Bantam cocks had 14 entries, the winner being a lovely White Rosecomb, second a Plymouth Rock, and the third a Jubilee Indian. In hens we found 19 entries, and one of the best classes in the Show. The winner was a beautifully barred Scots Grey, a most typical bird all the way from Scotland; second was a nice Light Sussex, and the third a good Light Brahma Bantam.

The limit price for the Bantam Selling classes was again made £2, with the result that many birds were sold during the Show.

THE PIGEON SECTION—DAIRY SHOW, 1925.

By W. S. BROCKLEHURST.

THE forty-seventh Annual Show was held on October 20th, 21st, 22nd, and 23rd, 1925, at the Royal Agricultural Hall, London, and was again a great success, as regards the number and quality of the exhibits on view in the Hall, though the receipts were somewhat below those of last year. The Pigeon Section was again up to the standard of former years. The entries were 66 up on last year's Show, the total number being 3,094 as compared with 3,028 at the 1924 Show, which shows that the Dairy Show is as popular with fanciers as ever, notwithstanding the unavoidable disadvantage the Committee are at to stage such a vast number of birds in such a limited space. A new order of staging the varieties was tried before the Show, so that the same varieties should not be staged in the same positions in the aisle every time, but it was found unworkable, and the old places had to be carried out, as the only other way to so alter things is to considerably cut down the classifications in future, which I am sure would not be very acceptable to different Specialist Clubs who support the Dairy Show each year with such good classifications. I sincerely hope that fanciers will remember that the Committee have had this matter before them, and carefully considered it, but regret that under the circumstances could not be altered, much as they would wish it, except as I have stated, by considerably curtailing the entries.

The Pigeon Section is always a very popular section with the general public, which is shown by the number of people who pass through the aisles, and from the number of questions asked about the different breeds of pigeons during the week, and especially with regard to the winners of the medals and different cups offered by British Dairy Farmers' Association and other Specialist Clubs for competition each year.

The winners of the principal trophies offered by the Association for competition this year are as follows:

The Gold Medal for the Best Pigeon in the Show bred in 1925, was awarded to Class 44, Pen 524, Mr. A. Taylor's young Carrier hen, which also won the Carrier Club's Cup for the Best Young Carrier. The Reserve going to Class 121, Pen 1515, Mr. W. Watmough's young African Owl, which also won the Gatty Challenge Cup for the Best Young African Owl. The Jones' Memorial Trophy for the Best Old Bird in the Show was awarded to Class 145, Pen 1752, Mr. A. C. Tattersall's Black Modena cock. Reserve going to Class 17, Pen 207, Mr. H. N. Leighton's Pigmy Pouter cock. The Esquilant Challenge Trophy for the Best Young Bird in Section No. 3 was awarded to Class 176, Pen 2034,

Mr. H. Coalston's Yellow Jacobin, and the Reserve being Class 6, Pen 81, Messrs. Weekes Bros.' Blue Fantail.

The Fulton Challenge Trophy for the Best Young Bird in Section No. 6 was awarded to Class 239, Pen 2902, Mr. W. J. Lee's Ice, Reserve going to Class 158, Pen 1867, Mr. W. F. Holmes' Modena Schietti Self cock.

All the above exhibitors are to be congratulated on having successfully bred and shown a bird of such merit, good enough to carry off one of the above trophies, which so many exhibitors have been striving year after year to carry off, but without success up to the present: the competition gets keener each year and some of the newer breeds are coming well to the front and holding their own against the old so-called high class breeds. It is wonderful the number of grand specimens seen in each breed that are penned at the Dairy Show each year that are not able to win one of the big trophies; one wishes them luck at the next Show. Details of the various varieties are as follows:—

Fantails numbered 173 in 12 classes which, as compared with last year, shows a decrease of 15 entries, with an additional class this year. The classes on the whole were as good as usual and up to the usual high standard, Blues being well to the fore, followed by the Blacks and Saddles; in the Blues there was a good even type throughout, one or two very excellent birds being staged. Young Blues were a grand lot also. Blacks were a good lot, and some very typical birds being shown, but might have been better in colour. Silvers, a very taking class; this colour is making good headway, and some quality birds of good colour were shown. Laced, very even class, and birds of a better type are now being shown in addition to being well laced. In the Reds and Yellows some nice birds were staged, but type is still much to be desired, and is far from fixed yet, but they are improving greatly. In the Any Other Colour Class some very good typical Chequers were shown. The Alfred Bates' Perpetual Challenge Cup given by the Fantail Club for the Best Fantail in the Show, was awarded to Class 2, Pen 14, Mr. Hugh Gordon's White hen, a charming pigeon. The Association Silver Medal winner was found in the young Blue, Class 6, Pen 81, Messrs. Dukes Bros.' young bird.

Pouters numbered 26 in four classes, as compared last year with 32 in the same number of classes, a decrease of six. The birds penned were of good type and quality, but it is a great pity that not more Pouters are shown at the Dairy Show to make competition a bit keener.

Pigmy Pouters.—This variety shows an increase again this year over last with 148 entries in 13 classes, the same number as last year, there being eight more entries this year, and the two Judges, although they had a good morning's work, had the job well in hand by the time the galleries were opened to the public, which is a great improvement on past years. The same applies in other big sections where it has been found necessary to have two Judges to get the work done in time for the public to get up in the galleries by 1 o'clock on the first day of the

Show. This variety shows a marked improvement on previous years, and the winner of the Association's Silver Medal, Class 22, Pen 253. Mr. H. N. Leighton's young bird is probably the nearest to the ideal that has yet been produced, and the variety is evidently gaining more admirers. The best birds not being all in a few lofts, and competition is getting keener every year. The Club's Challenge Cup for the Best Blue, Silver or Cream Cock, bred in the current year, was awarded to Class 21, Pen 241, Mr. H. N. Leighton's young bird. The Club's Challenge Cup for the Best Pigmy Pouter Cock, Any Other Colour, was awarded to Class 17, Pen 207, Mr. H. N. Leighton's Black cock, and the Richard Foster Challenge Cup offered by the Club for the Best Red or Yellow Pied Cock was awarded to Class 25, Pen 298, Mr. A. T. Jupe's young Yellow cock. Mr. H. N. Leighton's Pen 207, Class 17, was also Reserve for the Jones' Trophy, a grand pigeon full of quality.

Norwich Croppers were 17 entries down on last year's total of 96 entries in five classes as compared with 79 entries in six classes this year. The quality throughout was very good, especially on the old cock and young Blue Classes, the winner in the Young Blue Hen Class being about perfect. Many of the birds were inclined to be on the shy side, and would not show; the birds were better through the moult than in former years. The Whites were not as good as most years, and only one Yellow was penned. The Bronze Medal of the Association for the Best Young Norwich Cropper was awarded to Mr. H. Whitley's young Blue hen.

Holle Croppers.—Three classes for this variety were put on for the first time this year at the Dairy Show, and brought together 45 entries in the three classes, two for old birds and one young class, 23 old birds turned up and 22 young ones, and were a grand lot, and much commented upon by the public, many of whom had not seen this variety staged before, except an odd one in the Any Other Variety Class. They are being taken up among several good fanciers, and should make great headway in this country. The young birds seen at the Dairy Show last year being of exceptional merit spoke well for next year's entries at the big shows. We hope to see them go ahead.

Carriers numbered 66 in seven classes as compared with 76 in the same number of classes last Show, a decrease of 10, though the quality was far in advance of last year, but I am still sorry to say that many Carriers of to-day that are shown have skulls more like Barbs than the real Carrier of a few years ago. The Carrier Club's Challenge Cup for the Best Young Bird was awarded to Mr. A. Taylor's young hen, the same bird being the winner of the Association Gold Medal for the Best Young Bird bred in 1925 in the Show, a grand Carrier hen, and should be heard of again. The Club's Challenge Cup for the Best Adult Bird going to Mr. F. Meyer's Pen 492, Class 41, the same pen taking the Association Bronze Medal for Best Carrier in Show—a grand yearling bird, and should make a great old bird, with luck.

Barbs had two classes as last year, and 16 the same as last year, also a great falling off from previous years; the quality was good, but this breed seems to be dying out, and very few of the old Barb breeders' names were seen in the Show Catalogue.

Dragoons.—This variety again turned up in force, and had a long way the largest entry in the Pigeon Section, there being 428 entries in 32 classes, an increase on last year's total of 28 more entries with one more class, but the biggest total was in 1924, when the Dragoons numbered 442 entries in 30 classes. The Judge's report on the 1925 bred birds, is as follows:—"The total entry of 223 young Dragoons in the 12 classes provided is, I think, a convincing proof of the continued popularity of the breed. Taken in bulk the Blues bred in the current year, do not, I think, show any advance in type over the 1924 crop. Blue cocks I found very disappointing; it is not often in a mixed class of Blues and Silvers, that a Silver leads the way, but in this instance I found the winner in a charming Silver exhibited by Dr. C. H. Tattersall, and I looked in vain for a Blue to beat it. This bird also won the "Cotton" Cup for Best Young Cock. The Blue Hen Class contained some good birds, but being penned in the top tier, they were unable to do themselves justice, and did not appeal to an eye looking for type. Blue Chequer cocks were on the whole good on structure, but lacking in quality. The Hen Class was a good one, and some topping hens were shown therein. Red Chequers continue to advance both in type, marking and colour, although many birds were of two mealy a tint. Grizzles just about held their own, the frosted huchill, which puts the finishing touch on a good Grizzle, was much in evidence on the winners, but sadly lacking on many of the runners-up. I found the winner of the "Cotton" Cup for the Best Young Hen in the hen class of this colour, a hen shown by Mr. E. H. Birks, of charming and impressive pose with a very determined outlook, the sort to breed from. Yellows and Reds, to my view, do not seem to be quite so good as they were as regards the young birds, the stout well-set outlook is not quite so strongly in evidence as it was a few years back. The Reds were very few numerically, and for type did not impress me very greatly. Whites, the tail end of the breed, are usually the most difficult colour for a judge to handle to his satisfaction, and this occasion was no exception to the rule. I did not see a young White which would make one feel that I should like to take it home if no one was looking. They seem to lack what I may term Dragon character; they need a lot more good Yellow blood putting into them. Some of them showed signs of a frill, doubtless the result of too close breeding which brings out any alien blood which may be in the strain."

The old birds came up well and were put down in good condition, and made a grand show of noted past years' winners. Some of the real Dragon type were to be seen in these classes.

The George Cotton Challenge Cup for the Best Young Cock, was awarded to Class 68, Pen 761, Dr. C. H. Tattersall's young Silver cock,

the same pen winning the Association Silver Medal for Best Young Dragoon Cock in Show.

The George Cotton Challenge Cup for the Best Young Hen was awarded to Class 77, Pen 938, Mr. E. H. Birks' charming young Grizzle hen, and the same pen was awarded the Association Silver Medal for the Best Young Dragoon Hen in the Show.

The Hewitt Challenge Cup for the Best White Dragoon bred in the current year, was awarded to Class 73, Pen 870, Mr. Cecil Cooper's young White cock. The Challenge Cup for the Best Red or Yellow Dragoon in the Show was awarded to Class 58, Pen 660, Mr. G. Wilkinson's adult hen.

Short-faced Tumblers.--In this section only 57 entries were forthcoming in five classes as compared with 68 in 1925, and 67 in 1924 in the same number of classes, a decrease of 11, and the quality of the exhibits was not so good as in former years, especially in the Almond Classes, few of them possessing the proper ground colour, on the whole they were shown in better condition than last year. These charming little pigeons do not seem to be as popular as it used to be a few years ago, and one regrets to note that since the last Dairy Show one of the oldest and most successful breeders in this variety is no longer with us.

The Association Silver Medal for the Best Short-faced Tumbler bred in 1925 was awarded to Class 83, Pen 1017, Major Godfrey Haselton's young Almond, a sweetly pretty little pigeon.

Long-faced Tumblers.--In this section there were 387 entries in the 28 classes, an increase on last year's number, there being 378 entries in 27 classes in 1925, and 347 entries in 27 classes in 1924, made up of 16 classes for Selves with an entry of 236, as compared with 249 in the same number of classes last year, and the Any Other Variety Long-faced Tumbler Classes had 151 entries in the 12 classes. The Black Self Class, as usual, was well filled, and the competition was very keen, especially in the 1925 Black Cock Class--the quality in this variety was very good indeed, especially in the 1925 birds where a general advance in quality and type was most noticeable than of past years. The improvement was even more noticeable in the Blue, Silver and Chequer Classes, and we hope to see the same improvement in the Mealies another year. In the Any Other Variety Classes the Black Balds were again well to the front, and the quality was very good and competition keen; the Bald Classes, taken on the whole, are showing an all round improvement, and the Association Silver Medal for the Best Long-faced Tumbler bred in 1925, was awarded to Class 103, Pen 1297, Mr. A. C. Tattersall's young Black Bald-head cock. The two Mottle Classes came up well; quality was good, over the average, each class contained a very large percentage of better birds than usual. The other classes were also well filled, and many good all round birds were to be seen in the winners.

English Owls.--The entry this year was slightly better than the last, there being 82 entries in seven classes as compared with 77 in the same

number of classes in 1924. The young classes were the better filled classes this year, no doubt the better entries were brought about by the new "Gatty Perpetual Challenge Cup," offered for the first time through a generous bequest of the late Mr. A. A. Gatty, who left the Committee of the British Dairy Farmers' Association a sum of £25 for a cup in this section, and also the same amount for a similar cup in the African Owl Section, both for young birds bred in the current year. There were many old birds of good all round typical specimens, and it is pleasing to see that the birds are put down in a much better condition, and looking altogether healthier than in years gone by. We hope to see better entries next year.

African Owls—This section is by far the worst in the Show, and has been so for several years, with the result that only two classes were given last year, and both had to be cancelled. At the request of several fanciers, the Committee again gave a classification of six classes, and with the handsome "Gatty Memorial Trophy" that is now in competition, it was hoped this variety would improve, but one regrets to say that in the six classes only 34 entries were forthcoming, which was very disappointing and most regrettable. However, the quality was exceptionally high, and the 1925 winning young Black which carried off the Gatty Challenge Cup and the Association Silver Medal, stood well away from the others, and was by far the best of the year, and the rest of the exhibits in the Section showed high class merit, not one poor specimen being on view.

Turbits showed an increase on last year's entry of nine. There being 80 entries in eight classes, the same number as last year, and were a grand lot of birds, and shown in good condition, one or two standing out well away from the others. Mr. W. R. Lobb, Pen 1617, Class 133, the winner of the Association Bronze Medal, being an exceptionally good young bird.

Archangels numbered 41 entries in four classes, as compared with 58 in the same number of classes last year, a decrease of 17, which was accounted for in the poor entries in the two old classes. The Judge was disappointed with the old birds, and his comment is as follows:— "The old classes not so numerous or yet so good as I have seen at the Dairy Show. The first prize old cock was certainly a good one, the old hens were rather poor, failing very much on back and pale in eye. The young birds were certainly better, but I should like to see more bronzing on flights and brighter in eye, unfortunately the best under coloured birds were very green in neck, this has always been a fault and will require looking into." The Association Bronze Medal was awarded to Pen 1641, Class 136, Mr. H. Leigh-Lye's young cock.

Modenas again came up well and made a wonderful display with an entry of 329 entries in 34 classes, a slight decrease of 23 on last year's total in the same number of classes. The total was made up of Gazzis 181, and Schiettis 148. The Gazzi Classes were well up to the

standard for type and style, but the colour in some cases was hardly as good as might be expected. Many of the Blues lacked depth of colour and richness of bars. The Bronzes might also be better laced and richer in colour. Black showed an improvement in colour, and birds excelling in type and style had to give way to colour. The Reds have improved a good deal, and several good rich Reds were shown, and as well as showing better styles and type, they are an attractive colour, and one would like to see more fanciers take this colour up. The Schietti Section came up well, and great improvement was to be seen in the Red Laced, and Argents Classes where the type and style of some of the birds shown is not far short of the Gazzis, one or two showed that beautiful fine lacing which is so hard to get, and much desired by Lace breeders. The Black Selves have made good headway since last year, and quite a number of very good specimens were on view, and are becoming very popular.

The winners of the Modena Club Challenge Cups, and the Association's Silver Medals were as follows :—

Cup for the Best Old Gazzi Cock, Class 139, Pen 1678, Mr. A. E. Sharp's Blue hen.

Cup for the Best Old Gazzi Hen, Class 144, Pen 1752, Mr. A. C. Tattersall's Black cock ; this bird was also awarded The Jones' Trophy for Best Old Bird in the Show.

Cup for the Best Old Schietti Cock, Class 156, Pen 1848, Mr. W. S. Brocklehurst's Blue Barred cock.

Cup for the Best Old Schietti Hen, Class 157, Pen 1855, Mr. W. S. Brocklehurst's Blue Barred hen.

Cup for the Best Young Gazzi Cock, Class 146, Pen 1771, Mr. A. C. Tattersall's young Black cock.

Cup for the Best Young Gazzi Hen, Class 147, Pen 1776, Mr. W. S. Brocklehurst's young Black hen.

Cup for the Best Young Schietti Cock, Class 158, Pen 1867, Mr. W. F. Holmes's Black Self cock.

Cup for the Best Young Schietti Hen, Class 161, Pen 1895, Mr. A. H. Lanfear's Barred hen.

The Association's Silver Medal for the Best Gazzi bred in 1925, was awarded to Mr. A. C. Tattersall, Class 146, Pen 1771, young Black cock.

The Association's Silver Medal for the Best Schietti bred in 1925, was awarded to Mr. W. F. Holmes, Class 158, Pen 1867, young Black Self cock. This bird was also reserve for the Fulton Trophy.

Jacobins.—This year six classes were again given in this section, as compared with four last year, two of which had to be cancelled, the six classes numbered 60 entries, an increase of 47 on last year, when the two young classes only brought together 13 birds. The quality of the exhibits was disappointing owing to the birds not being in full feather, but that is why the Dairy Show is not very popular with

Jacobin exhibitors, as it is too early for their birds, and very few are sufficiently advanced to be shown. The winner of the Esquilant Challenge Trophy was found in Mr. Harry Coalston's young Yellow Jacobin, the same bird winning the Association's Bronze Medal for Best Young Birds, Class 176, Pen 2034.

Nuns numbered 81 in five classes, an increase of 11 on last year's entry in the same number of classes, and they made a grand show, and the quality was excellent, and it was much to be regretted that many excellent birds were not in the running owing to the fact that they arrived after the judging had been finished, or they would undoubtedly have been in the prize list. The winner of the Association's Bronze Medal for the Best Cock or Hen bred in 1925, was awarded to Class 179, Pen 2087, Mr. H. G. Daniell's young Black cock.

Oriental Frills showed a decrease of 27 entries in the same number of classes as last year, there being 112 entries in the 14 classes this year, and although they only averaged eight per class, the quality was well up to the previous years. Birds were well balanced in both type, lacing and markings, that were staged in the several varieties. Especially strong in this respect were the Young Any Other Colour Laced Satinettes. The Young Blondinette Classes were rather below the average of preceding years, but no doubt many of these would look better at a later date, and no doubt the Judge had a somewhat difficult task in discriminating, in making his awards when classes are for cocks and hens. The importance of good hens in the breeding pens cannot be over-estimated, and their encouragement in the Show pen would tend towards a better value being placed on the weaker sex.

The Challenge Cup offered by the Oriental Frill Club for the Best Adult was awarded to Class 189, Pen 2178, Mr. C. E. Hope's Blondinette cock. Mr. G. H. Leech's young Oriental Turbit, Class 184, Pen 2139, was awarded the Association's Silver Medal.

Magpies numbered 51 in five classes as compared with 46 entries in four classes last year, an increase of five with one class more. The quality was good all through and the birds are showing a better and more pleasing type and style than a few years ago. The Association's Bronze Medal was awarded to Class 198, Pen 2258, Mr. W. Illingworth & Sons' Black hen, a pigeon which stood right away in its class.

Marthams had the usual one class provided for this breed, and brought together 12 entries, one more than last year. The type in this breed is improving and getting more uniform.

Antwerps.—Again these classes showed a decrease on last year's total, there being only 42 entries in six classes as compared with 56 entries in six classes last year. The old birds turned up better than the 1925 birds, and were shown in wonderful condition, and some of the good last year's young birds were well to the front, as was expected from their wonderful appearance last year in the Show pens. The

Association's Bronze Medal was awarded to Mr. James Walker's young cock, Class 207, Pen 2339, a very promising pigeon.

Show Homers were down on last year's total on the same number of classes, this year there were 152 entries in the 12 classes as compared with 167 entries last year. The adult classes were well up to average for quality, and contained several really good pigeons. The young classes as regards numbers came up well in the Blue and Black Chequers. The exhibits were not up to the usual standard, but in the Any Other Colour, Blue, Silver and Mealies there were some excellent birds. The United Show Homer Challenge Trophy was won by an adult pigeon of good merit, and was found in Mr. G. R. Hartley's hen, Class 210, Pen 2376, and the Association's Silver Medal was won by a young Blue cock of splendid quality and type belonging to Mr. J. W. Swan, Class 219, Pen 2486.

Racing Pigeons.—In this section there was a slight increase on last year's entries, there being 256 entries in the six classes as compared with 249 entries in 1925, but still down on 1924 entries of 304. The disastrous training year of 1924 is still showing its result in the different lofts about the country; last year was a fairly good one. The standard of merit in all classes was well maintained, and the true type of Racing Pigeons with its handsome appearance was very noticeable, and the birds looked very workmanlike. Lieut.-Col. A. H. Osman had again given a very handsome Victory Cup No. 2 for the Best Racing Pigeon, to replace the one which was won outright at the last Show. Mr. J. Edmund's young bird, which had flown at least 100 miles during 1925, was awarded this Cup, Class 222, Pen 2549. The same bird was also awarded Lieut.-Col. A. H. Osman's Cup for Best Old Bird, and the Association's Silver Medal for Best Racing Pigeon in Show.

The Lieut.-Col. A. H. Osman's Cup for Best Young Bird was awarded to Messrs. Snow & Watson's young cock, Class 223, Pen 2614.

Exhibition Flying Homers.—This section is again down on last year's total, there being 63 entries in six classes as compared with 97 entries in eight classes in 1924, but there was a great improvement in this section as compared with previous years. Shortness of feather, combined with length of face, but many birds were not through moult, and lacked finish. The Association's Silver Medal was awarded to Class 231, Pen 2805, Messrs. Brooke & Walstenholme's young cock.

Genuine Homers.—Four classes were added to the Dairy Show Schedule this year for this bird, and it brought together in the four classes 47 entries; the quality of the old birds was very good, and a very marked improvement was noticeable in the young birds of a uniform type, but they were not quite through their moult.

Ptarmigan.—The two classes provided for this bird this year brought together 26 entries, which was four less than last year in the same two classes, and the quality was good, and the improvement in

colour of eye and shape of skull seen at last year's Show was well maintained.

Ice.—The one class put in this year for this variety only produced seven entries of this very charming bird, one less than last year. The marking and colour were excellent, and Mr. W. J. Lee's Class 239, Pen 2902, was awarded the Fulton Challenge Trophy.

Strassers.—One class was put in this year for the first time, and brought a good entry of 12 birds, which were well shown and in excellent condition, but with the exception of the winners were poor in quality and type

Swifts.—This one class had 10 entries, as compared with eight entries last year in the one class. The colouring of this variety is certainly most beautiful, and the birds were shown in wonderful condition. We hope that this variety will come up better next year.

Runts.—This section produced the same number of entries in the one class as last year, 16, and was a good class for condition, and the birds were in far better feather than in past years.

Mondains showed a slight increase of two entries in the two classes this year, there being 16 entries in the two classes, but were only a fair class as regards birds and condition.

Maltese.—One class was put in this year for the first time, but had to be cancelled, but that was through the fact that one or two of the Judges acting at this year's Show are Maltese breeders, and therefore unable to exhibit, which otherwise they would have done. The Committee may think well to try this class another year for that reason.

Any Other Variety had two classes provided and were well filled, there being 34 entries in the two, one less than in the previous year, and contained several birds of very high merit, and were a nice collection, there being Scandaroons, Trumpeters, Carneaux, Larks, Fairy Swallows, Plain-headed Fairies, and Copper Blaze-Faces.

Selling Classes numbered eight, four at £4, and four at £2, and brought together 104 birds, a drop on last year's total of 129, and the previous year's total of 138. These classes contained some remarkably good birds, many of which were quite good enough for open competition. The classes being open to Any Variety meant that almost every variety was represented, and very few of any but the very best were shown. The Pouters, Antwerps, and Dragoons were very numerous and showed such type and quality that most of the leading awards were carried off by these varieties; these plums of victory though, were not easily won, as many other varieties strongly contested the positions. Taken as a whole the Limit Classes were quite a feature of the Show, and quite a good few of the birds being claimed.

In conclusion, I have again to repeat that the Show was a great success, and I wish to thank my Assistant Steward, Mr. H. J. Keppel, and my other Stewards for all their help and assistance so ably and willingly given on these occasions, which is the great factor in carrying through a Dairy Show successfully at the Agricultural Hall, London, and I sincerely hope to the entire satisfaction of all who exhibited at the 1925 Show.

I wish to thank all those good and true fanciers who act as my Stewards and Assistant Stewards, and give those services voluntarily and willingly, which is so helpful to the smooth running of a great Show of this kind, and for the splendid way they all worked to get the birds penned in time for judging, and also the award cards up on the pens by lunch time, and to the very careful way the handling of the exhibits was carried out, and packed for return home at the close of the Show. I much appreciate and wish to thank the Secretary and Assistant Secretary and their staff for all the help and assistance they so readily give at any time during the Show when required, and which is always most helpful to the carrying out of the week's work at the Agricultural Hall.

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AWARD OF PRIZES, DAIRY SHOW, 1925.

DAIRY COWS AND HEIFERS IN MILK.

THE "BLEDISLOE" CHALLENGE TROPHY (presented by LORD BLEDISLOE, K.B.E.), awarded to the Ayrshire Cattle Herd Book Society for the Best Exhibit of good all-round Dairy Cows. The Cows competing for the Trophy were the first six in the Breed Milking Trials and were considered by the Inspection Judge to be typical specimens of the Breed.

THE "THORNTON" CHALLENGE CUP (presented by Messrs. JOHN THORNTON & CO.), for the Best Group of three Pedigree Shorthorn Cows and/or Heifers upon Inspection only, awarded to T. L. Martin, for "Hutton Daffodil 2nd," "Barrington Lucy," and "Ashe Wild Duchess."

THE "THORNTON" CHALLENGE CUP (presented by Messrs. JOHN THORNTON & CO.), for the Best Group of three Pedigree British Friesian Cows and/or Heifers upon Inspection only, awarded to The Hache Herd, for "Haydon Pax," "Hache Akkar Virtue," and "Hache Vespers."

SPECIAL PRIZE of £10 (offered by Mr. ROBERT L. MOND, J.P.), and SECOND PRIZE of £5 (offered by the COUNTESS DE LA WARR), for Two Animals, the Progeny of any particular Bull, awarded respectively to J. Cochrane, for "Byreholm Viper 2nd," and "Byreholm Diamond" (Ayrshires). Major C. R. Dudgeon for "Cargen Holm Proud Lady 8th," and "Cargen Holm White Stockings 10th" (Ayrshires).

THE "MORRISON" CHALLENGE TROPHY, value 100 Guineas (presented by Major J. A. MORRISON, D.S.O.), will be awarded to the Owner of the Cow exhibited at three consecutive London Dairy Shows, gaining the greatest total number of points (at the three Shows) upon Inspection, in the Milking Trials and Butter Tests, awarded to A. B. Croxon, for "Spot" (Dairy Shorthorn).

Class 1.—DAIRY SHORTHORN COW.—Entered in or eligible for Coates' Herd Book, or its pedigree sent for such entry previous to the Show, born on or previous to 1st August, 1920. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First Inspection Prize* (£10) to T. L. Martin, for "Hutton Daffodil 2nd." *Second Inspection Prize* (£5) to D. & P. Rushton, for "Penwortham Bonny Lady." *Third Inspection Prize* (£3) to F. H. Thornton, for "Kingsthorpe Countess Ruby 2nd." *First Milking Trial Prize* (£12) and the "Desborough" Cup to Major S. P. Yates, for "Rickerscote Foggathorpe." *Second Milking Trial Prize* (£6), and *Extra Inspection Prize* (£5) to T. P. Preece, for "Pencoyd Blanche 2nd." *Third Milking Trial Prize* (£3 10s.) to G. P. Golden, for "Lady Doreen."

Class 2.—DAIRY SHORTHORN COW.—Entered in or eligible for Coates' Herd Book, or its pedigree sent for such entry previous to the Show, born after 1st August, 1920, and previous to 1st August, 1922.—*First Inspection Prize* (£5) and the "Calvert" Challenge Cup to Viscount Feilding, for "Sudborough Ringlet." *Second Inspection Prize* (£3), *Second Milking Trial Prize* (£3 10s.) and *Equal* for the Shorthorn Society's Prize (£10) to Major R. F. Fuller, for "Chalfield Valentine." *Third Inspection Prize* (£2), *First Milking Trial Prize* (£6), and *Equal* for the Shorthorn Society's Prize (£10), to R. Tustian, for "Greattew Blossom." *Third Milking Trial Prize* (£2 10s.) to G. P. Golden, for "Lady Maisie."

CLASS 3.—DAIRY SHORTHORN HEIFER.—Entered in or eligible for Coates' Herd Book, born on or after 1st August, 1922. — *First Inspection Prize* (£5), and the Shorthorn Society's Prize (£5) to F. H. Thornton, for "Kingsthorpe Countess Ruby 4th." *Second Inspection Prize* (£3), *Third Milking Trial Prize* (£2 10s.), and the Shorthorn Society's Prize (£5) to T. L. Martin, for "Ashe Wild Duchess." *Third Inspection Prize* (£2) to T. L. Martin, for "Barrington Lucy." *First Milking Trial Prize* (£6) to E. A. Smith, for "Longhills Darlington 3rd." *Second Milking Trial Prize* (£2 10s.) to G. P. Golden, for "Lady Doreen 9th."

CLASS 4.—DAIRY SHORTHORN COW.—Not eligible for Classes 1 or 2. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society. *First Inspection Prize* (£10), *First Milking Trial Prize* (£12), the Dairy Shorthorn Association's Prize (£10), and *Extra Inspection Prize* (£5) to A. B. Croxon, for "Spot." *Second Inspection Prize* (£5) to H. P. Mortimer, for "Rosaline." *Third Inspection Prize* (£3) to J. H. Robinson, for "Martha." *Second Milking Trial Prize* (£6) to Kidner Bros., for "Stokeley Cross Beauty." *Third Milking Trial Prize* (£3 10s.) to H. P. Mortimer, for "Ruth 3rd."

CLASS 5.—DAIRY SHORTHORN HEIFER.—Born on or after 1st August, 1922. Not eligible for Class 3.—*First Inspection Prize* (£5) and *First Milking Trial Prize* (£6) to J. H. Robinson, for "Watercreek Ruby." *Second Inspection Prize* (£3) and *Second Milking Trial Prize* (£3 10s.) to W. H. Phipps, for "Faith." *Third Inspection Prize* (£2) to J. Pierpont Morgan, for "Cowslip 3rd."

CLASS 6.—LINCOLNSHIRE RED SHORTHORN COW.—Entered in or eligible for the Herd Book of the Lincolnshire Red Shorthorn Association. Cows entered in this Class must have yielded a minimum of 7,000 lbs. at five years old or over, or 5,250 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First Inspection Prize* (£10) and *Extra Inspection Prize* (£5) to F. R. Wood, for "Bendish Ada 5th." *Second Inspection Prize* (£5) to B. G. Bowser, for "Scothern Mystic." *Third Inspection Prize* (£3) and *First Milking Trial Prize* (£12) to J. Evens & Son, for "Burton Amy 7th." *Second Milking Trial Prize* (£6) to J. Evens & Son, for "Burton Hempy 6th." *Third Milking Trial Prize* (£3 10s.) to Little Green Estates Co., for "Langford Castle 5th."

CLASS 7.—LINCOLNSHIRE RED SHORTHORN HEIFERS.—Born on or after 1st August, 1922. Entered in or eligible for the Herd Book of the Lincolnshire Red Shorthorn Association. — *First Inspection Prize* (£5) and *First Milking Trial Prize* (£8 10s.) to S. Reading, for "Langford Polly 18th." *Second Inspection Prize* (£3) and *Third Milking Trial Prize* (£2 10s.) to J. Evens & Son, for "Burton Royal Starlight 12th." *Third Inspection Prize* (£2) to J. Evens & Son, for "Burton Vic 19th." *Second Milking Trial Prize* (£5) to J. Evens & Son, for "Burton Hempy 9th."

CLASS 8.—BRITISH FRIESIAN COW.—Born on or previous to 1st August, 1920. Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 8,000 lbs., at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.—*First Inspection Prize* (£10) and *Extra Inspection Prize* (£5) to B. Parkinson, for "Beccles Gloria." *Second Inspection Prize* (£5), *First Milking Trial Prize* (£12), and the "Spencer" Challenge Cup to S. Pyman, for "Felhampton Susan." *Third Inspection Prize* (£3) to Lord Rayleigh, for "Terling Torch 13th." *Second Milking Trial Prize* (£6) to the Hache Herd, for "Haydon Pax." *Third Milking Trial Prize* (£3 10s.) to Lord Barnby, for "Walden Lena."

Class 9.—BRITISH FRIESIAN COW.—Born after 1st August, 1920, and previous to 1st August, 1922. Entered in or eligible for the Herd Book. *First* Inspection Prize (£5) and *Third* Milking Trial Prize (£2 10s.) to W. Twentymen, for "Winchester Musk." *Second* Inspection Prize (£3) and *First* Milking Trial Prize (£6) to C. W. H. Glossop, for "Lund (imp. 1922) Blanche 22nd." *Third* Inspection Prize (£2) to C. W. H. Glossop, for "Lund Juliet." *Second* Milking Trial Prize (£3 10s.) to B. Parkinson, for "Thurston Karel's Emuly."

Class 10.—BRITISH FRIESIAN HEIFER.—Born on or after 1st August, 1922. Entered in or eligible for the Herd Book.—*First* Inspection Prize (£5) and *First* Milking Trial Prize (£6) to J. Bromet, for "Golf Dorrit 2nd." *Second* Inspection Prize (£3) and *Second* Milking Trial Prize (£3 10s.) to E. Furness, for "Hamels Eleanor." *Third* Inspection Prize (£2) to W. H. R. Gilbert, for "Haydon Bountiful 3rd."

Class 11.—SOUTH DEVON COW.—Entered in or eligible for the Herd Book of the South Devon Herd Book Society.—Cows entered in this Class must have yielded a minimum of 7,500 lbs. at five years old or over, or 5,600 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£7) and *Extra* Inspection Prize (£5) to W. Hunt, for "Milkmaid 9th." *Second* Inspection Prize (£4), the South Devon Herd Book Society's Prize (£5), *First* Milking Trial Prize (£8 10s.), and the South Devon Herd Book Society's Challenge Cup to G. Wills, for "Snowdrop 2nd."

Class 12.—DAIRY SOUTH DEVON COW.—Entered in or eligible for the Herd Book of the Recorded Dairy South Devon Cattle Society.—Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£7) to J. E. Furneaux, for "Jef Queenie." *Second* Inspection Prize (£4), *Third* Milking Trial Prize (£2 10s.), and *Extra* Inspection Prize (£5) to T. Evens, for "Ramsland Dainty." *Third* Inspection Prize (£2) and *First* Milking Trial Prize (£8 10s.) to G. Furneaux, for "Luson Milkmaid." *Second* Milking Trial Prize (£5) to R. Hall, for "Ferry Lady 2nd."

Class 13.—DEVON COW.—Entered in or eligible for the Herd Book or entered in the Supplemental Register of such Herd Book.—Cows entered in this Class must have yielded a minimum of 6,500 lbs. at five years old or over, or 4,800 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£7) and the "Busk" Challenge Cup to J. H. Chick, for "Wynford Dahha." *Second* Inspection Prize (£4) and *Extra* Inspection Prize (£5) to W. D. Chick, for "Lovely 4th." *Third* Inspection Prize (£2) to N. D. Lupton, for "Compton Happiness." *First* Milking Trial Prize (£8 10s.) to A. T. Loram, for "May." *Second* Milking Trial Prize (£5) to A. T. Loram, for "Janet." *Third* Milking Trial Prize (£2 10s.) to R. A. Clarke & Sons, for "Gentle."

Class 14.—RED POLL COW.—Born on or previous to 1st August, 1920. Entered in or eligible for the Herd Book.—Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£7) and *Extra* Inspection Prize (£5) to W. Scrimgeour, for "Tendring Floss 29th." *Second* Inspection Prize (£4) and *Second* Milking Trial Prize (£5) to Major J. A. Morrison, D.S.O., for "Hutton Dahha 2nd." *Third* Inspection Prize (£2) and *First* Milking Trial Prize (£8 10s.) to the Duchess of Newcastle, for "Hardwick Ashberry." *Third* Milking Trial Prize (£2 10s.) to W. R. Glazebrook, Junr., for "Gressenhall Red Berry."

- Class 15.—RED POLL COW.—Born after 1st August, 1920, and previous to 1st August 1922. Entered in or eligible for the Herd Book.—*First* Inspection Prize (£7) and *Third* Milking Trial Prize (£2 10s.) to J. B. Dimmock, for "Shotford Lady Mary 5th." *Second* Inspection Prize (£4), *First* Milking Trial Prize (£8 10s.), and the Red Poll Cattle Society's Prize (£5) to C. F. Newton, for "Saham Leezie." *Third* Inspection Prize (£2) and *Second* Milking Trial Prize (£5) to Mrs. R. M. Foot, for "White Hill Pansy."
- Class 16.—RED POLL HEIFER.—Born on or after 1st August, 1922. Entered in or eligible for the Herd Book.—*First* Inspection Prize (£5), *First* Milking Trial Prize (£6), and the Red Poll Cattle Society's Prize (£5) to C. F. Newton, for "Saham Darker Draught." *Second* Inspection Prize (£3) to F. W. Leach, for "Meddler (Gleam)." *Third* Inspection Prize (£2) and *Second* Milking Trial Prize (£3 10s.) to Major J. A. Morrison, D.S.O., for "Basildon Plotter 2nd." *Third* Milking Trial Prize (£2 10s.) to Major J. A. Morrison, D.S.O., for "Hutton Apricot 2nd."
- Class 17.—BLUE ALBION COW.—Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£10), *First* Milking Trial Prize (£12), and *Extra* Inspection Prize (£5) to J. D. Seals, for "Pike Verocity." *Second* Inspection Prize (£5) to Lt.-Col. W. E. Harrison, for "Bramshall Joan." *Third* Inspection Prize (£3) and *Third* Milking Trial Prize (£3 10s.) to J. D. Seals, for "Bradbourne (iddy Grl)." *Second* Milking Trial Prize (£6) to J. D. Seals, for "Pike Venice."
- Class 18.—WELSH BLACK COW.—Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 7,000 lbs. at five years old or over, or 5,250 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£7) and *First* Milking Trial Prize (£8 10s.) to C. W. Crompton, for "Hall Green Gift." *Second* Inspection Prize (£4), *Second* Milking Trial Prize (£5), and *Extra* Inspection Prize (£5) to J. B. Jones, for "Mwynig Hunod."
- Class 19.—AYRSHIRE COW.—Cows entered in this Class must have yielded a minimum of 7,500 lbs. at five years old or over, or 5,600 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£7), *First* Milking Trial Prize (£8 10s.), *Extra* Inspection Prize (£5) the "Barham," "Rowallan," and "Shirley" Challenge Cups to J. Johnstone, for "Millantae Mayflower." *Second* Inspection Prize (£4) and *Second* Milking Trial Prize (£5) to A. & A. Kirkpatrick, for "Dalpeddar Flora." *Third* Inspection Prize (£2) to O. D. Maxted, for "Rigg Rosie." *Third* Milking Trial Prize (£2 10s.) to F. H. Sanderson, for "Round Bush Sunbeam 2nd."
- Class 20.—AYRSHIRE HEIFER.—Registered or eligible for registration with a number in the Herd Book or in the Appendices. Born on or after 1st August, 1922.—*First* Inspection Prize (£5) and *Third* Milking Trial Prize (£2 10s.) to Major C. R. Dudgeon, for "Cargen Holm White Stockings 10th." *Second* Inspection Prize (£3) and *First* Milking Trial Prize (£6) to J. Cochrane, for "Byreholm Viper 2nd." *Third* Inspection Prize (£2) to A. W. Montgomerie, for "Lessnessock Daisy Chain 4th." *Second* Milking Trial Prize (£3 10s.) to H. J. Clark, for "Kilfillan Fillet."
- Class 21.—GUERNSEY COW.—Born on or previous to 1st August, 1920. Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old, either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£7), *First* Milking Trial Prize (£8 10s.), *Extra* Inspection Prize (£.),

and the "Stagenhoe" Challenge Cup to T. R. Bolitho, for "Tregye Maze." *Second Inspection Prize* (£4) to W. Dunkels for "Loulou of Goodnestone." *Third Inspection Prize* (£2) to A. Chester Beatty, for "Flossy of Bella Cottage." *Second Milking Trial Prize* (£5) to W. F. Trumper, for "Dahlia Polly 2nd."

Class 22.—GUERNSEY COW.—Born after 1st August, 1920, and previous to 1st August, 1922. Entered in or eligible for the Herd Book.—*First Inspection Prize* (£5) and *Third Milking Trial Prize* (£2 10s.) to A. Chester Beatty, for "Cheriton Fashion." *Second Inspection Prize* and *Second Milking Trial Prize* (£3 10s.) to J. B. Body, for "Morland Lady Richmond." *Third Inspection Prize* (£2) to W. F. Trumper, for "Rangebourne Rosie." *First Milking Trial Prize* (£6) to Mrs. D. Corbett, for "Hockley Ivy 2nd."

Class 23.—GUERNSEY HEIFER.—Born on or after 1st August, 1922. Entered in or eligible for the Herd Book.—*First Inspection Prize* (£5) and *First Milking Trial Prize* (£6) to A. Chester Beatty, for "Calehill Peaceful." *Second Inspection Prize* (£3) to Viscount Palmouth, for "Tregothnan Princess Royal." *Third Inspection Prize* (£2) and *Second Milking Trial Prize* (£3 10s.) to "Calehill Sall." *Third Milking Trial Prize* (£2 10s.) to W. F. Trumper, for "Rubella 2nd of Sarnia."

Class 24.—JERSEY COW.—English or Island bred. Born on or previous to 1st August, 1920. Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old, either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First Inspection Prize* (£7), *Second Milking Trial Prize* (£5), and the "Blythwood" Challenge Bowl to Mrs. H. Briggs, for "Lily of the Valley." *Second Inspection Prize* (£4) to J. J. Hoyle, for "Lady Vedas 6th." *Third Inspection Prize* (£2) to R. Bruce Ward, for "Miranda's Lass." *First Milking Trial Prize* (£8 10s.) to R. Bruce Ward, for "Pirouette." *Third Milking Trial Prize* (£2 10s.) to the Hon. A. A. P. Henderson, for "Windlesham Windflower."

Class 25.—JERSEY COW.—English or Island bred. Born after 1st August, 1920, and previous to 1st August, 1922. Entered in or eligible for the Herd Book.—*First Inspection Prize* (£5), *First Milking Trial Prize* (£6), and *Extra Inspection Prize* (£5) to G. Cross, for "Roberta's Star 2nd." *Second Inspection Prize* (£3) to the Hon. A. A. P. Henderson, for "Danbury Prohibition." *Third Inspection Prize* (£2) to R. Bruce Ward, for "Philandra." *Second Milking Trial Prize* (£3 10s.) to J. Pierpont Morgan, for "Tidy Mabel." *Third Milking Trial Prize* (£2 10s.) to Mrs. E. Watts, for "Essence Pride."

Class 26.—JERSEY HEIFER.—English or Island bred. Born on or after 1st August, 1922. Entered in or eligible for the Herd Book.—*First Inspection Prize* (£5) to Mrs. E. Watts, for "Colombier Eminence." *Second Inspection Prize* (£3) and *Second Milking Trial Prize* (£3 10s.) to R. Bruce Ward, for "Pavlova." *Third Inspection Prize* (£2) to E. A. Strauss, for "Kingston Princess Aldan." *First Milking Trial Prize* (£6) to G. Cross, for "Doreen." *Third Milking Trial Prize* (£2 10s.) to R. Bruce Ward, for "Martingold."

Class 27.—KERRY COW.—Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 6,000 lbs. at five years old or over, or 4,500 lbs. at under five years old, either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.—*First Inspection Prize* (£5), *First Milking Trial Prize* (£6), *Extra Inspection Prize* (£5), the "National Milk" and British Kerry Cattle Society's Challenge Cups to Lady Fitzgerald, for "Buckland Peace 2nd." *Second Inspection Prize* (£3) to the Kerry Estates, Ltd., for "Valencia Eileen 3rd." *Third Inspection Prize* (£2) and *Second Milking Trial Prize* (£3 10s.) to Brig.-Gen. L. Palmer, for "Coquet Gipsy." *Third Milking Trial Prize* (£2 10s.) to Capt. N. Zambra & C. Williamson-Milne, for "Buckhurst Elphin."

Class 28.—KERRY HEIFER.—Born on or after 1st August, 1922. Entered in or eligible for the Herd Book.—*First* Inspection Prize (£5) and *First* Milking Trial Prize (£6) to Capt. N. Zambra and C. Williamson-Milne, for "Castle-lough Missie," *Second* Inspection Prize (£3) and *Third* Milking Trial Prize (£2 10s.) to Capt. N. Zambra and C. Williamson-Milne, for "Hattingley Beauty," *Third* Inspection Prize (£2) and *Second* Milking Trial Prize (£3 10s.) to Lady Fitzgerald, for "Buckland Emma."

Class 29.—DEXTER COW.—Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 5,000 lbs. at five years old or over, or 3,750 lbs. at under five years old, either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£5), *First* Milking Trial Prize (£6), and the "Nutt" Challenge Cup to T. A. Stephens, for "Just Found of Hookstile," *Second* Inspection Prize (£3), *Second* Milking Trial Prize (£3 10s.), and *Extra* Inspection Prize (£5) to H. F. Earl, for "Bridesmaid," *Third* Inspection Prize (£2) to Col. W. O. Gibbs, for "Barrow Bee 6th."

Class 30.—DEXTER HEIFER.—Born on or after 1st August, 1922. Entered in or eligible for the Herd Book. *First* Inspection Prize (£5) and *First* Milking Trial Prize (£6) to Col. W. O. Gibbs, for "Barrow Biscuit 2nd."

Class 31.—COW OF ANY BREED.—Animals entered in this Class must be milked three times daily, but will not be allowed to compete with Animals milked twice daily for Milking Trial and Butter Test Prizes and Trophies. Cows entered in this class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old, either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£8) and *Third* Milking Trial Prize (£2) to Lord Rayleigh, for "Terling Sky 8th" (British Friesian). *Second* Inspection Prize (£5) and *Second* Milking Trial Prize (£5) to W. G. White & Sons, for "Larbourne Octavia" (British Friesian). *Third* Inspection Prize (£2) to H. G. Howard, for "Pitsea Spider" (British Friesian). *First* Milking Trial Prize (£8) to C. B. Tubbs, for "Terling Ivory 8th" (British Friesian).

BUTTER TESTS.

SHORTHORNS, entered in Classes 1, 2, 3, 4, 5, 6, and 7.—*First* Prize (£10 and Silver Medal) and the "George Bateman Nelson" (Coronation) Challenge Cup to Major S. P. Yates, for "Rickerseote Foggathorpe." *Second* Prize (£5 and Bronze Medal) to J. Evens & Son, for "Burton Amy 7th." *Third* Prize (£3) to J. Evens & Son, for "Burton Hempy 6th." *Fourth* Prize (£2) to S. Reading, for "Langford Queen 7th."

BRITISH FRIESIANS, entered in Classes 8, 9, and 10.—*First* Prize (£10 and Silver Medal) to The Hache Herd, for "Haydon Pax." *Second* Prize (£5 and Bronze Medal) to B. Parkinson, for "Thurston Karel's Emily." *Third* Prize (£3) to S. Pyman, for "Felhampton Susan." *Fourth* Prize (£2) to The Hache Herd, for "Hache Akkar Virtue."

RED POLLS, entered in Classes 14, 15, and 16.—*First* Prize (£5 and Silver Medal) to W. Scrimgeour, for "Tendring Floss 29th." *Second* Prize (£3 and Bronze Medal) to C. F. Newton, for "Saham Darker Draught."

AYRSHIRES, entered in Classes 19 and 20.—*First* Prize (£5 and Silver Medal) to W. Adamson, for "Harleyholm Rosebud 2nd." *Second* Prize (£3 and Bronze Medal) to Mrs. H. Craufurd, for "Dunlop Harpsichord." *Third* Prize (£2) to Q. Dunlop, for "Greenan Kate 6th."

GUBRNSBYS, entered in Classes 21, 22, and 23.—*First* Prize (£5 and Silver Medal) to T. R. Bolitho, for "Tregye Maze." *Second* Prize (£3 and Bronze Medal) to J. B. Body, for "Morland Lady Richmond." *Third* Prize (£2) to Sir James Remnant, Bart, for "Southern Starette."

JERSEYS, entered in Classes 24, 25, and 26—*First Prize* (£5 and E. J. C. S. Gold Medal) to R. Bruce Ward, for "Pirouette." *Second Prize* (£3 and E. J. C. S. Silver Medal) and the "National" Butter Challenge Cup to F. B. Imbert-Terry, for "Blue Hayes Sporrán." *Third Prize* (£2 and E. J. C. S. Bronze Medal) to G. Cross, for "Roberta's Star 2nd."

KERRIES, entered in Classes 27 and 28.—*First Prize* (£5 and Silver Medal) to Lady Fitzgerald, for "Buckland Peace 2nd." *Second Prize* (£3 and Bronze Medal) to J. W. Towler, for "Vaddy Mourncmore." *Third Prize* (£2) to Capt. N. Zambra and C. Williamson-Milne, for "Hattingley High Kick."

ANY OTHER BREED, entered in Classes 11, 12, 13, 17, 18, 29, and 30—Prizes of £3 each to G. Wills for "Snowdrop 2nd" (South Devon); R. Hall, for "Ferry Lady 2nd" (Dairy South Devon); A. T. Loram, for "May" (Devon); Lt.-Col. W. E. Harrison, for "Bramshall Joan" (Blue Albion); C. W. Crompton, for "Hall Green Gift" (Welsh Black); H. F. Earl, for "Bridesmaid" (Dexter). Prizes of £2 each to A. T. Loram, for "Janet" (Devon); J. D. Seals, for "Pike Venice" (Blue Albion); Col. W. O. Gibbs, for "Barrow Bee 6th" (Dexter).

Cows entered in Class 31—No award.

BULLS.

Class 32.—DAIRY SHORTHORN BULL.—Entered in or eligible for Coates' Herd Book, born previous to 1st August, 1923.—*First Prize* (£10) to the Earl of Bessborough, for "Bessborough Polonius." *Second Prize* (£5) to L. Hignett, for "Kelmescott Imperialist 71st." *Third Prize* (£3) to J. S. Corby, for "Cherry Duke." *Fourth Prize* (£2) to J. Pierpont Morgan, for "Buckswood Fusilier."

Class 33.—DAIRY SHORTHORN BULL.—Entered in or eligible for Coates' Herd Book, born on or after 1st August, 1923.—*First Prize* (£10) to R. N. Tory, for "Anderson Champion Bates." *Second Prize* (£5) to Viscount Feilding, for "Foxhill Telluria Boy." *Third Prize* (£3) to T. L. Martin, for "Cheekendon Marcus." *Fourth Prize* (£2) to R. Tustian, for "Sorbrook Clarence."

Class 34.—BRITISH FRIESIAN BULL.—Entered in or eligible for the Herd Book, born on or after 1st August, 1923.—*First Prize* (£5) to Friend Sykes, for "Richings Sir Kenneth." *Second Prize* (£3) to H. Neaverson, for "Haydon Cherry Segis."

Class 35.—RED POLL BULL.—Entered in or eligible for the Herd Book, born after 1st August, 1923, and on or prior to 1st August, 1924.—*First Prize* (£5) to Major J. A. Morrison, D.S.O., for "Basildon Watchman." *Second Prize* (£3) to Major J. A. Morrison, D.S.O., for "Hutton Bright Boy." *Third Prize* (£2) to W. R. Glazebrook, Junr., for "Lydiat Red Robe."

Class 36.—JERSEY BULL.—Entered in or eligible for the Herd Book, born on or after 1st August, 1922.—*First Prize* (£10) to H. S. Mountain, for "Sir Laurel." *Second Prize* (£5) to G. Cross, for "Penshurst Cœur de Lion." *Third Prize* (£3) to R. Bruce Ward, for "Sir Lovat."

SHE-GOATS.

MILKING COMPETITION FOR GOATS OF ANY VARIETY.

The "Dewar" Challenge Cup for Goat and Goathing awarded to Mrs. A. Abbey, for "Didgemere Dream" (Anglo-Nubian Swiss) and "Didgemere Design" (British Alpine).

Class 37.—SHE-GOAT qualified as "Star or 'Q' Star Milker."—*First Prize* (£6 and Silver Medal), the "Tremedda Selene" Challenge Cup, the "Dewar" Challenge Trophy, the "Baroness Burdett-Coutts" Challenge Cup, and Challenge Certificate to Mrs. A. Abbey, for "Didgemere Dream" (Anglo-Nubian Swiss). *Second Prize* (£3) to Mrs. Morcom, for "Champion Leazes

Fortitude" (Anglo-Nubian Swiss). *Third Prize* (£1 10s.) to Mrs. A. Abbey, for "Didgemere Ding" (Anglo-Nubian Swiss). The "Pomeroy" Challenge Cup to Miss K. Pelly, for "Nash Bellona" (Anglo-Nubian).

Class 38.—SHE-GOATS not eligible for Class 37.—*First Prize* (£6 and Silver Medal) to Mrs. A. Abbey, for "Didgemere Dove" (Anglo-Nubian Swiss). *Second Prize* (£3) to Mrs. F. J. Browell, for "Play of Bashley" (Anglo-Nubian Swiss). *Third Prize* (£1 10s.) to Miss M. Harrison, for "Myrtle."

INSPECTION CLASSES.

The "Riding" Challenge Cup for best group of three Goats awarded to Mrs. A. Abbey, for "Didgemere Dawdler" (British Alpine), "Didgemere Dream" (Anglo-Nubian Swiss), and "Didgemere Design" (British Alpine).

Class 39.—SHE-GOAT, TOGGENBURG, entered in the Toggenburg Section of the Herd Book, or eligible for entry therein.—*First Prize* (£2 10s.), Breed Challenge Certificate, and B. G. S. Challenge Certificate to P. Wainwright, for "Fryston Senna." *Second Prize* (£1 5s.) to Miss Alexander, for "Stockwell Corroopsis." *Third Prize* (15s.) to Mrs. Morcom, for "Berones."

Class 40.—SHE-GOAT, BRITISH TOGGENBURG.—No entry.

Class 41.—SHE-GOAT, BRITISH ALPINE.—*First Prize* (£2 10s.) to Mrs. A. Abbey, for "Didgemere Dawdler." *Second Prize* (£1 5s.) to Mrs. A. Abbey, for "Didgemere Delilah." *Third Prize* (15s.) to Mrs. F. J. Browell, for "Pogo of Bashley."

Class 42.—SHE-GOAT, SAANEN.—Entered in or eligible for entry in the Swiss or Saanen Section of the Herd Book.—*First Prize* (£2 10s.) and Breed Challenge Certificate to Miss C. Booth, for "Springfield Fidelity."

Class 43.—SHE-GOAT, ANGLO-NUBIAN, being any Goat entered in the Anglo-Nubian Section of the Herd Book, or eligible for entry therein.—*First Prize* (£2 10s.) and Breed Challenge Certificate to Miss K. Pelly, for "Nash Bellona." *Second Prize* (£1 5s.) to Miss K. Pelly, for "Theydon Annette." *Third Prize* (15s.) to R. Turner, for "Horne Bay Princess."

Class 44.—SHE-GOAT, ANY OTHER VARIETY, not eligible for previous Classes.—*First Prize* (£2 10s.) and the British Goat Society's Challenge Cup to Mrs. A. Abbey, for "Didgemere Dream" (Anglo-Nubian Swiss). *Second Prize* (£1 5s.) to Mrs. Morcom, for "Champion Leazes Fortitude" (Anglo-Nubian Swiss). *Third Prize* (15s.) to Mrs. A. Abbey, for "Didgemere Ding" (Anglo-Nubian Swiss).

Class 45.—SHE-GOAT that is recorded under a recognised Milk Recording Society.—Cancelled.

Class 46.—GOATLING, TOGGENBURG AND BRITISH TOGGENBURG.—Over one year but not exceeding two years.—*First Prize* (£2 10s.) and the "Toggenburg" Challenge Cup to P. Wainwright, for "Fryston Stella." *Second Prize* (£1 5s.) to Mrs. A. Abbey, for "Didgemere Deborah." *Third Prize* (15s.) to Mrs. R. E. Wroughton, for "Emanuel Phoebe."

Class 47.—GOATLING, BRITISH ALPINE.—Over one year, but not exceeding two years.—*First Prize* (£2 10s.) and B.G.S. Bronze Medal to Mrs. A. Abbey, for "Didgemere Design." *Second Prize* (£1 5s.) to Mrs. A. Abbey, for "Didgemere Dorothy." *Third Prize* (15s.) to Mrs. A. Abbey, for "Didgemere Duck."

Class 48.—GOATLING, SAANEN OR BRITISH SAANEN.—Over one year, but not exceeding two years.—*First Prize* (£2 10s.) to Miss C. Booth, for "Springfield Unity." *Second Prize* (£1 5s.) to Mrs. Morcom, for "Cornish Snowdrop." *Third Prize* (15s.) to Miss C. Booth, for "Springfield Verity."

Class 49.—GOATLING, ANGLO-NUBIAN.—Entered in or eligible for entry in the Anglo-Nubian Section of the Herd Book.—Over one year, but not exceeding two years.—*First Prize* (£2 10s.) to Miss K. Pelly, for "Theydon Beryl." *Second Prize* (£1 5s.) to Miss K. Pelly, for "Theydon Angelica." *Third Prize* (15s.) to Miss K. Pelly, for "Theydon Butterfly."

Class 50.—GOATLING, ANY OTHER VARIETY.—Not eligible for previous Classes.—Over one year, but not exceeding two years.—*First Prize* (£2 10s.) to Miss K. Pelly, for "Wendy of Westons" (Anglo-Nubian Swiss). *Second Prize* (£1 5s.) to Mrs. A. Abbey, for "Didgemere Dorcas" (Anglo-Nubian Swiss). *Third Prize* (15s.) to Miss N. O'Donnell, for "Ridgeway Rosaphele" (Anglo-Nubian Swiss).

CHEESE.

Class 51.—STILTON (6 Cheeses).—*First Prize* (£7) to The United Dairies (Wholesale) Ltd., Harby. *Second Prize* (£4) to The Cropwell Bishop Dairy Co., Ltd. *Third Prize* (£2) to The Stathern and District Dairy, Ltd.

Class 52.—STILTON (18 Cheeses).—*First Prize* (£10 and Silver Medal) to J. M. Nuttall & Co., Ltd. *Second Prize* (£5) to The United Dairies (Wholesale) Ltd., Harby. *Third Prize* (£3) to H. Thompson & Sons, Ltd.

Class 53.—CHEDDAR TRUCKLES (6 Cheeses).—*First Prize* (£7) to W. Cole. *Second Prize* (£4) to W. H. Collins. *Third Prize* (£2) to G. R. Cole.

Class 54.—CHEDDAR (4 Cheeses).—*First Prize* (£7) to F. Portch. *Second Prize* (£4) to T. Logan. *Third Prize* (£3) to W. Cole. *Fourth Prize* (£2) to J. Corrie. *Fifth Prize* (£1) to Messrs. Campbell.

Class 55.—CHEDDAR (12 Cheeses).—*First Prize* (£15 and Silver Medal), the "Lord Mayor's" Champion Cup, and the "N.K.J." Challenge Cup to S. T. White. *Second Prize* (£10) to Messrs. Campbell. *Third Prize* (£7) to J. P. Hunter. *Fourth Prize* (£5) to A. H. Stevenson. *Fifth Prize* (£3) to D. Houston.

Class 56.—COLONIAL CHEDDAR, Coloured or Uncoloured (4 Cheeses not less than 60 lbs. each). *First Prize* (Gold Medal) and the "Hansen" Challenge Trophy to W. C. Taylor. *Second Prize* (Silver Medal) to G. Bain. *Third Prize* (Bronze Medal) to H. E. Donnelly.

Class 57.—CHESHIRE (12 Cheeses).—*First Prize* (£15), the "Robert Barbour" Prize (£5), the "Lord Mayor's" Champion Cup, and the "Fullwood & Bland" Challenge Cup to O. Hesketh. *Second Prize* (£10) to W. H. Hobson. *Third Prize* (£7) to P. H. Walley. *Fourth Prize* (£5) to W. E. Moore. *Fifth Prize* (£3) to C. F. Hobson.

Class 58.—CHESHIRE (4 Coloured Cheeses, not less than 40 lbs. each).—*First Prize* (£7) to W. H. Hobson. *Second Prize* (£4) to G. Sutton. *Third Prize* (£2) to C. E. Parton.

Class 59.—CHESHIRE (4 Uncoloured Cheeses, not less than 40 lbs. each).—*First Prize* (£7) to W. H. Hobson. *Second Prize* (£4) to P. H. Walley. *Third Prize* (£2) to W. E. Moore.

Class 60.—CHESHIRE (4 Cheeses, not less than 40 lbs. each).—Open only to those who have never won a Prize for Cheshire Cheese at any Show of the British Dairy Farmers' Association.—*First Prize* (£5) to W. W. Hockenhull. *Second Prize* (£3) to G. Sutton. *Third Prize* (£2) to A. Hughes.

Class 61.—FACTORY.—To be manufactured at and exhibited by a recognised Cheese Factory dealing with a minimum of 500 gallons of milk daily (10 Cheeses, any Variety, not less than 28 lbs. each).—*First Prize* (£7) to The Cheddar Valley Dairy Co., Ltd. *Second Prize* (£4) to C. M. Hallett. *Third Prize* (£2) to Wathes Bros. *Fourth Prize* (£1) to Cary & Grimsdell.

- Class 62 - LEICESTER (4 Cheeses) - *First Prize* (£4) to H. Forryan. *Second Prize* (£3) to E. Ball & Sons. *Third Prize* (£2) to H. Knight & Co.
- Class 63 - LANCASHIRE (4 Cheeses). - *First Prize* (£4) to J. Exton. *Second Prize* (£3) to The British Dairy Institute. *Third Prize* (£2) to J. Whiteside.
- Class 64. - DERBY (4 Uncoloured Cheeses, not less than 25 lbs. each). - *First Prize* (£4) to H. Richardson. *Second Prize* (£3) to The Brailsford Dairy Farmers' Association, Ltd. *Third Prize* (£2) to The British Dairy Institute.
- Class 65. - DOUBLE GLOSTER (4 Cheeses, from 26 lbs. to 30 lbs. each, total weight not to exceed 120 lbs.). - *First Prize* (£4) to Mrs. W. Haine. *Second Prize* (£3) to Miss H. M. Naish. *Third Prize* (£2) to J. Taylor.
- Class 66. - SINGLE GLOSTER (4 Cheeses, from 13 lbs. to 15 lbs. each, total weight not to exceed 60 lbs.). - *First Prize* (£4) to E. F. Jones. *Second Prize* (£3) to Mrs. W. Haine. *Third Prize* (£2) to L. Shield.
- Class 67 - CAERPHILLY (4 Cheeses, not exceeding 8 lbs. each). - *First Prize* (£4) to C. H. Raymond. *Second Prize* (£3) to Mrs C. Woodward. *Third Prize* (£2) to The Cheddar Valley Dairy Co., Ltd.
- Class 68. - WENSLEYDALE (6 Cheeses, Blue-moulded). - *First Prize* (£4) to The British Dairy Institute. *Second Prize* (£3) to A. Rowntree & Son.
- Class 69. - SMALLHOLDER PRESSED (2 Cheeses under 8 lbs., but over 4 lbs. each) - *First Prize* (£3) and the "Walker" Challenge Cup to Miss E. M. Madge. *Second Prize* (£2) to Miss C. Fry. *Third Prize* (£1) to W. A. Tucker & Son. *Fourth Prize* (10s.) to Mrs. W. J. Acreman.
- Class 70. - SMALLHOLDER PRESSED (2 Cheeses, not exceeding 4 lbs. each). - *First Prize* (£3) and the "McWilliam" Fruit Dish to Mrs. Gadd. *Second Prize* (£2) to P. G. Hicks. *Third Prize* (£1) to Miss E. M. Madge. *Fourth Prize* (10s.) to Miss H. M. Naish.
- Class 71. - SMALL CHEDDAR (2 Cheeses, made at home, from 8 lbs. to 10 lbs. each). - Open to pupils who have attended County Travelling Cheese Schools during 1924 or 1925. - *First Prize* (£3) to Miss K. M. Preece. *Second Prize* (£2) to A. W. Knapman. *Third Prize* (£1) to Miss D. Hunt. *Fourth Prize* (10s.) to Miss I. Arnold.
- Class 72. - SMALL CHESHIRE (2 Cheeses, made at home, from 8 lbs. to 10 lbs. each). - Open to pupils who have attended County Travelling Cheese Schools during 1924 or 1925. - *First Prize* (£3) to C. W. Hobson. *Second Prize* (£2) to A. P. Sadler. *Third Prize* (£1) to J. G. Kinsey. *Fourth Prize* (10s.) to T. Evans.
- Class 73. - INTER-COUNTY COMPETITION. - FOR THE BEST COLLECTION OF SMALLHOLDER CHEESES made by the persons who have received instruction in Cheesemaking at a County Council Travelling Cheese School during 1922-1925. The Head Teacher or County Organiser in each County to make the entry, which shall consist of six individual Competitors whose names shall be stated at the time of entry. Each Competitor's Exhibit shall consist of four cheeses—manufactured in Competitors' own dairies—of not more than 8 lbs. each in weight, and the number of distinct varieties and types are taken into consideration when making Awards. The prizes to be allocated: One half to the successful Competitors and one half to the County Teacher or Teachers. A Certificate of Merit will be awarded by the British Dairy Farmers' Association to each individual competitor receiving a Prize. *First Prize* (the "Inter-County" Challenge Shield and £10) to Berkshire:—

Miss J. Matthews (Instructress).

Mrs. A. K. Barnett. Mrs. S. E. Goodenough Mrs. L. Morris.

Miss E. Davidson. Mrs. Taylor. Miss Young.

Class 74.—CREAM CHEESE, made from pure Cream only. No Milk or Curd to be added (6 Cheeses).—*First Prize* (£1) to Mrs. J. T. Garbutt. *Second Prize* (10s.) to The East Anglian Institute of Agriculture

Class 75.—UNRIPENED SOFT CHEESE, other than Cream Cheese. Made direct from Milk (4 Cheeses).—*First Prize* (£1) to F. Webster. *Second Prize* (10s.) to Miss R. James

COLLECTION OF PRODUCE

Class 76.—Open only to Women's Institutes. To consist of 2 lbs. Fresh Butter, 1 lb. Cream (raw or scalded) and 2 dozen Eggs. The Collection to be packed in a box and sent to the Show by Parcel Post. Packages taken into consideration when making awards.—*First Prize* (£5) to The Snape Women's Institute. *Second Prize* (£3) to The St. Leonards Women's Institute. *Third Prize* (£2) to The Spexhall & Wissett Women's Institute.

BACON.

Class 77.—PALE DRIED (4 hamless sides, English Shoulder Belly, of Spring or Winter Cure). Weight of side not to exceed 50 lbs.—*First Prize* (£5) to Marsh & Baxter, Ltd.

Class 78.—PALE DRIED (4 hamless special cut sides of Spring or Winter Cure).—Weight of side not to exceed 45 lbs.—*First Prize* (£5) to Marsh & Baxter, Ltd.

Class 79.—SMOKED (4 sides, mild cured in Wiltshire style, with ham attached).—*First Prize* (£5) to M. Venner & Sons, Ltd. *Second Prize* (£3) to M. Venner & Sons, Ltd.

Class 80.—PALE DRIED (4 sides, mild cured in Wiltshire style, with ham attached).—*First Prize* (£5) to M. Venner & Sons, Ltd. *Second Prize* (£3) to M. Venner & Sons, Ltd.

Class 81.—TWO SIDES OF BACON SMOKED, TWO SIDES OF BACON PALE DRIED, TWO HAMS SMOKED AND TWO HAMS PALE DRIED (the weight of the sides not less than 56 lbs. and not more than 68 lbs. each; the hams not less than 12 lbs. and not more than 20 lbs. each.)—*First Prize* (£7 7s.) to M. Venner & Sons, Ltd. *Second Prize* (£3 3s.) to M. Venner & Sons, Ltd. *Third Prize* (£2 2s.) to The Herts. and Beds. Bacon Factory.

Class 82.—BACON PIGS (6 Pigs entered by their respective Breed Societies).—*Prize* (The "Whitley" Challenge Cup) to the Gloucestershire Old Spots Pig Society.

Class 83.—BACON PIGS, PEDIGREE (2 pigs entered by Breeders).—*Prize* (The "Beale" Challenge Cup) and the "Harris" Challenge Cup to Bennett & Howard (Gloucestershire Old Spots). *Second Prize* (£3) to Spencer, Son & Hancox (Large White). *Third Prize* (£2) to G. H. Eustice (Long White Lop-eared).

Class 84.—BACON PIGS—FIRST CROSS (2 pigs entered by Breeders).—*First Prize* (The "Bledisloe" Bacon Challenge Cup) to Lord Bledisloe, K.B.E. (Large White and Large Black). *Second Prize* (£3) to H. H. Pickford (Large White and Large Black). *Third Prize* (£2) to Major-Gen. R. L. Mullens, C.B. (Middle White and Large White).

Class 85.—COLONIAL (4 sides).—No award.

HAMS.

Class 86.—PALE DRIED (4 hams, long cut, of Winter or Spring cure, not over 14 lbs. weight).—*First Prize* (£5) to W. H. Smart & Co., Ltd. *Second Prize* (£3) to Marsh & Baxter, Ltd.

Class 87.—PALE DRIED (4 hams, long cut, of Winter or Spring cure, over 14 lbs. weight).—*First Prize* (£5) to T. Foster. *Second Prize* (£3) to W. H. Smart & Co., Ltd.

- Class 88.—SMOKED (4 hams, long cut, mild cured, not over 10 weeks cured, not over 15 lbs. weight).—*First Prize* (£5) to M. Venner & Sons, Ltd. *Second Prize* (£3) to Marsh & Baxter, Ltd.
- Class 89.—PALE DRIED (4 hams, long cut, mild cured, not over 10 weeks cured, over 15 lbs. weight).—*First Prize* (£5) to Marsh & Baxter, Ltd. *Second Prize* (£3) to Rashers.
- Class 90.—ONE HAM (home cured). Open only to Members of Women's Institutes. —*First Prize* (£2) to Mrs. C. Hubbard. *Second Prize* (£1) to Mrs. L. A. Blake.
- Class 91.—ONE HAM (cured in the Farmhouse or Home; dealers and professional bacon curers not eligible).—*First Prize* (£2) to W. White & Sons. *Second Prize* (£1) to W. White & Sons.
- Class 92.—SELLING CLASS (2 hams, any variety).—*First Prize* (£2) to T. Foster. *Second Prize* (£1) to T. Foster. *Third Prize* (10s.) to J. Johnson & Sons.

BUTTER.

- Class 93.—SLIGHTLY SALTED. Open only to farmers, their wives, sons and daughters, occupying not exceeding 100 acres, and who have never won a prize in the Butter Classes at any of the Association's Shows; 2 lbs. in 1-lb. lumps (brick shape).—*First Prize* (£3) to Miss O. L. Hornby. *Second Prize* (£2) to Miss A. M. Ward. *Third Prize* (£1) to Mrs. F. M. Cosham. *Fourth Prize* (10s.) to Mrs. J. Mitchinson. *Fifth Prize* (5s.) to Mrs. P. Roach.
- Class 94.—PERFECTLY FREE FROM SALT (the produce of Channel Islands Cattle and their Crosses; 2 lbs. in 1-lb. lumps, brick shape).—*First Prize* (£3) to Mrs. L. Matthews. *Second Prize* (£2) to The Earl of Guilford. *Third Prize* (£1) to J. Pierpont Morgan. *Fourth Prize* (10s.) to Mrs. A. Underwood. *Fifth Prize* (5s.) to Mrs. J. H. Hearn.
- Class 95.—SLIGHTLY SALTED (the produce of Channel Islands Cattle and their Crosses; 2 lbs. in 1-lb. lumps, brick shape).—*First Prize* (£3) to J. Pierpont Morgan. *Second Prize* (£2) to Miss A. Feby. *Third Prize* (£1) to Miss L. T. Hare. *Fourth Prize* (10s.) to Mrs. L. Matthews. *Fifth Prize* (5s.) to The Earl of Guilford.
- Class 96.—PERFECTLY FREE FROM SALT (the produce of Shorthorn and other Cattle and their Crosses, except Channel Islands and their Crosses; 2 lbs. in 1-lb. lumps, brick shape). *First Prize* (£3) and the "Lord Mayor's" Champion Cup to Mrs. L. R. Mildon. *Second Prize* (£2) to Mrs. W. Turnill. *Third Prize* (£1) to Mrs. J. H. Hearn. *Fourth Prize* (10s.) to Mrs. G. Blackler. *Fifth Prize* (5s.) to Miss A. M. Ward.
- Class 97.—SLIGHTLY SALTED (the produce of Shorthorn and other Cattle and their Crosses, except Channel Islands and their Crosses; 2 lbs. in 1-lb. lumps, brick shape).—*First Prize* (£3) to Mrs. J. T. Garbutt. *Second Prize* (£2) to Mrs. G. Blackler. *Third Prize* (£1) to Mrs. J. H. Hearn. *Fourth Prize* (10s.) to Mrs. J. Yeo. *Fifth Prize* (5s.) to Mrs. Heywood.
- Class 98.—FREE FROM SALT OR SLIGHTLY SALTED, at the discretion of the Exhibitor, to be made from Scalded Cream only (2 lbs. in 1-lb. lumps, brick shape).—*First Prize* (£3) to Mrs. L. Matthews. *Second Prize* (£2) to Miss A. Feby. *Third Prize* (£1) to Mrs. W. Irving. *Fourth Prize* (10s.) to Mrs. J. H. Hearn. *Fifth Prize* (5s.) to Mrs. J. Yeo.
- Class 99.—SLIGHTLY SALTED, in boxes of 12 bricks of 1-lb. each.—*First Prize* (£3) to The Macamore Co-operative Creamery, Ltd. *Second Prize* (£2) to The Kilkenny Co-operative Creamery, Ltd. *Third Prize* (£1) to The Glenwilliam Co-operative Dairy Society, Ltd. *Fourth Prize* (10s.) to The Herbertstown Co-operative Agricultural and Dairy Society, Ltd.
- Class 100.—FREE FROM SALT (24-lb. boxes of 12 rolls).—*First Prize* (£3) to The Shanagolden Co-operative Dairy Society, Ltd. *Second Prize* (£2) to The Herbertstown Co-operative Agricultural & Dairy Society, Ltd. *Third Prize* (£1) to The Dromkeen Co-operative Agricultural & Dairy Society, Ltd.

Class 101.—MILD CURED (Slightly Salted in 24 lb. boxes of 24 rolls).—*First Prize* (£3) to The Kilkenny Co-operative Creamery, Ltd. *Second Prize* (£2) to The Shanagolden Co-operative Dairy Society, Ltd. *Third Prize* (£1) to The Herbertstown Co-operative Agricultural & Dairy Society, Ltd. *Fourth Prize* (10s.) to The Dromkeen Co-operative Agricultural & Dairy Society, Ltd.

Class 102.—CURED (Slightly Salted, 28 lbs.).—*First Prize* (£3) to The Glenwilliam Co-operative Dairy Society, Ltd. *Second Prize* (£2) to The Kilkenny Co-operative Creamery, Ltd. *Third Prize* (£1) to The Ballyrashane Co-operative Agricultural & Dairy Society, Ltd. *Fourth Prize* (10s.) to The Dromkeen Co-operative Agricultural & Dairy Society, Ltd.

Class 103.—CURED (56 lbs.).—*First Prize* (£3) to The Kilkenny Co-operative Creamery, Ltd. *Second Prize* (£2) to The Dromkeen Co-operative Agricultural & Dairy Society, Ltd. *Third Prize* (£1) to The Ballyrashane Co-operative Agricultural & Dairy Society, Ltd. *Fourth Prize* (10s.) to the Macamore Co-operative Creamery, Ltd.

Class 104.—TWO POUNDS, made up in the most attractive form in Bricks, Rolls or Pats for table use.—*First Prize* (£3) to Miss E. Challenger. *Second Prize* (£2) to Mrs. G. Blackler. *Third Prize* (£1) to C. Monk.

Class 105.—FANCY OR ORNAMENTAL DESIGN (with Foliage or other extraneous Decoration).—*First Prize* (£3) to Miss H. M. Trenchard. *Second Prize* (£2) to Miss P. L. Mudd. *Third Prize* (£1) to Miss E. Bush.

COLONIAL BUTTER.

Class 106.—SALTED (one box containing not less than 56 lbs.).—*First Prize* (Gold Medal) to P. Burns & Co., Ltd. *Second Prize* (Silver Medal) to M. Jensen. *Third Prize* (Bronze Medal) to J. L. Burrows.

Class 107.—UNSALTED (one box containing not less than 56 lbs.).—*First Prize* (Gold Medal) to The Saskatchewan Co-operative Creamery, Ltd. *Second Prize* (Silver Medal) to The Queensland Farmers' Co-operative Co., Ltd. *Third Prize* (Bronze Medal) to The Singleton Central Co-operative Dairy Co., Ltd.

COLLECTION OF COLONIAL DAIRY PRODUCE.

Class 108.—To include Bacon, Dead Poultry and Eggs.—*Prize* (Gold Medal) to The Commonwealth of Australia.

CREAM.

Class 109.—CLOTTED.—*First Prize* (£2 2s. and Silver Medal) to Mrs. H. A. Tinney. *Second Prize* (£1 1s. and Bronze Medal) to W. R. Beer.

Class 110.—OTHER THAN CLOTTED.—*First Prize* (£2 2s. and Silver Medal) to Major F. P. P. Soper. *Second Prize* (£1 1s. and Bronze Medal) to Miss M. E. Hampton.

BOTTLED FRUIT, VEGETABLES, AND JAMS.

Class 111.—SIX BOTTLES OF SOFT FRUIT, of not less than 4 Varieties (Rhubarb admitted).—Cancelled.

Class 112.—SIX BOTTLES OF STONY FRUIT, of not less than 4 Varieties (Apples and Pears admitted).—Cancelled.

Class 113.—THREE BOTTLES OF SOFT FRUIT, distinct.—*First Prize* (£1) and Silver Medal to Mrs. C. J. Wintour. *Second Prize* (10s.) to Mrs. Turney. *Third Prize* (7s. 6d.) to The Cathedral Dairy.

Class 114.—THREE BOTTLES OF STONY FRUIT, distinct.—*First Prize* (£1) to Miss F. R. Wilkinson. *Second Prize* (10s.) to Mrs. Turney. *Third Prize* (7s. 6d.) to Mrs. C. J. Wintour.

Class 115.—THREE BOTTLES OF STONE OR SOFT FRUIT, distinct, preserved in Syrup. *First Prize* (£1) to Mrs. K. Dalton. *Second Prize* (10s.) to Mrs. C. J. Wintour. *Third Prize* (7s. 6d.) to Miss V. M. Lyddon.

Class 116.—SIX BOTTLES OF VEGETABLES, of not less than 4 Varieties (Tomatoes admitted).—*First Prize* (£2) to Mrs. C. J. Wintour. *Second Prize* (£1) to Mrs. E. Cuddick.

Class 117.—THREE BOTTLES OF VEGETABLES, distinct.—Cancelled.

Class 118.—THREE JARS OF JAM (1-lb. each, dissimilar, any Variety).—*First Prize* (£1) to Mrs. C. J. Wintour. *Second Prize* (10s.) to The Cathedral Dairy. *Third Prize* (7s. 6d.) to Miss M. E. Shuter.

Class 119.—COMBINED EXHIBIT OF BOTTLED FRUITS, VEGETABLES, JAMS, FRUIT JELLIES, PICKLES AND CHUTNEYS, open only to Women's Institutes. To consist of 3 bottles of Soft Fruit, 3 bottles of Stone Fruit, 3 bottles of Vegetables, 3 1-lb. jars of Jam or Fruit Jelly, 3 jars of Pickles or Chutney. All exhibits to be shown in glass containers and to be of not less than two varieties.—*First Prize* (£5) to The St. Weonard's Women's Institute. *Second Prize* (£3) to The Loose Women's Institute. *Third Prize* (£2) to The Snape Women's Institute.

HONEY, WAX, &c.

Class 120.—SIX JARS OF LIGHT-COLOURED EXTRACTED HONEY (1 lb. each approximate weight).—*First Prize* (£1) to J. S. Leigh. *Second Prize* (15s.) to C. H. Barber. *Third Prize* (12s. 6d.) to A. J. Harris. *Fourth Prize* (10s.) to A. H. Smith.

Class 121.—SIX JARS OF MEDIUM-COLOURED EXTRACTED HONEY, other than Heather Honey (1 lb. each approximate weight).—*First Prize* (£1) to F. Humphreys. *Second Prize* (15s.) to D. J. Griffiths. *Third Prize* (12s. 6d.) to Miss A. B. Flower. *Fourth Prize* (10s.) to Miss E. Challenger.

Class 122.—SIX JARS OF DARK-COLOURED EXTRACTED HONEY, including any Variety of Heather Mixture (1 lb. each approximate weight).—*First Prize* (£1) to W. J. Goodrich. *Second Prize* (15s.) to Mrs. B. J. Pond. *Third Prize* (10s.) to F. Humphreys.

Class 123.—SIX JARS OF GRANULATED HONEY, of 1924 or any previous year (1 lb. each approximate weight).—*First Prize* (£1) to A. H. Smith. *Second Prize* (10s.) to W. J. Goodrich. *Third Prize* (7s. 6d.) to E. C. R. White.

Class 124.—SIX SECTIONS OF HONEY, other than Heather (size 4½ by 4½, 1 lb. each approximate weight).—*First Prize* (£1) to Mrs. B. J. Pond. *Second Prize* (15s.) to J. E. Swaffield. *Third Prize* (10s.) to W. S. Halford.

Class 125.—DISPLAY OF COMB AND EXTRACTED HONEY, of any year (approximately 100 lbs. in weight, shown on a space of 3 ft. 6 in. by 3 ft. 6 in.).—*First Prize* (£5) to G. A. Taylor. *Second Prize* (£2) to F. Humphreys.

Class 126.—WAX (not less than 2 lbs. in 2 cakes only; the produce of the Exhibitor's Apiary; extracted and cleaned by the Exhibitor or his Assistants).—*First Prize* (15s.) to E. C. R. White. *Second Prize* (10s.) to Miss A. B. Flower.

Class 127.—WAX (not less than 3 lbs.; the produce of the Exhibitor's Apiary; extracted and cleaned by the Exhibitor or his Assistants; to be shown in shape, quality and package suitable for the retail trade).—*First Prize* (15s.) to Mrs. I. Scott. *Second Prize* (10s.) to F. Humphreys.

Class 128.—INTERESTING AND INSTRUCTIVE EXHIBIT OF A PRACTICAL OR SCIENTIFIC NATURE, connected with BEE CULTURE, not mentioned in the foregoing Classes.—*First Prize* (15s.) to G. A. Taylor, for "The Development of the Hive Bee from the Egg to the Perfect Insect."

Class 129.—THREE VESSELS OF COLONIAL EXTRACTED HONEY, as imported.—*First Prize* (Silver Medal) to The Ontario Beekeepers' Association. *Second Prize* (Bronze Medal) to The Ontario Beekeepers' Association.

ROOTS

- Class 130.—SIX SPECIMENS OF GLOBE MANGOLDS, drawn from a crop of not less than two acres.—*First Prize* (£3) to D. Thomas. *Second Prize* (£2) to J. James. *Third Prize* (£1) to H. F. Read.
- Class 131.—SIX SPECIMENS OF GOLDEN TANKARD MANGOLDS, YELLOW FLESHED, drawn from a crop of not less than two acres.—*First Prize* (£3) to W. Watts. *Second Prize* (£2) to R. Thomas. *Third Prize* (£1) to T. Chettle.
- Class 132.—SIX SPECIMENS OF INTERMEDIATE MANGOLDS, drawn from a crop of not less than two acres.—*First Prize* (£3) to J. James. *Second Prize* (£2) to Broughton & Son. *Third Prize* (£1) to H. G. Bennett.
- Class 133.—SIX SPECIMENS OF SWEDES, PURPLE TOP, drawn from a crop of not less than two acres.—*First Prize* (£3) to J. A. Whittle. *Second Prize* (£2) to R. E. Baty. *Third Prize* (£1) to J. H. Hedley.
- Class 134.—SIX SPECIMENS OF SWEDES, BRONZE TOP, drawn from a crop of not less than two acres.—*First Prize* (£3) to W. Watts. *Second Prize* (£2) to P. Walker. *Third Prize* (£1) to W. Davidson.
- Class 135.—SIX SPECIMENS OF SWEDES, GREEN TOP, drawn from a crop of not less than two acres.—*First Prize* (£3) to J. James. *Second Prize* (£2) to W. Davidson. *Third Prize* (£1) to R. Thomas.
- Class 136.—SIX SPECIMENS OF TURNIPS, any one Variety, drawn from a crop of not less than two acres.—*First Prize* (£3) to J. Meikle. *Second Prize* (£2) to R. Paterson. *Third Prize* (£1) to T. W. Turnbull.
- Class 137.—THREE SPECIMENS OF CABBAGE, drawn from a crop of not less than two acres.—*First Prize* (£3) to F. S. Mee. *Second Prize* (£2) to J. A. Wright. *Third Prize* (£1) to B. Wright.
- Class 138.—SIX SPECIMENS OF KOHL-RABI, drawn from a crop of not less than two acres.—*First Prize* (£3) to P. Perry. *Second Prize* (£2) to T. Chettle. *Third Prize* (£1) to A. Steel.
- Class 139.—SIX SPECIMENS OF KALE, MARROW STEM, drawn from a crop of not less than two acres.—*First Prize* (£3) to J. A. Wright. *Second Prize* (£2) to T. Thorns. *Third Prize* (£1) to A. J. P. Isaac.
- Class 140.—COLLECTION OF ROOTS, &c., FOR CATTLE-FEEDING IN WINTER. To consist of six specimens of not exceeding ten Varieties in as many distinct Types as possible.—*First Prize* (£5) to W. Watts. *Second Prize* (£3) to P. Perry. *Third Prize* (£2) to J. James.

INVENTIONS.

- Class 141.—ANY NEW APPARATUS OR INVENTION RELATING TO THE DAIRY INDUSTRY, OR ONE SHOWING DISTINCT AND PRACTICAL IMPROVEMENT ESPECIALLY AS TO SAVING LABOUR, not eligible for competition in any other Class, and not previously exhibited in competition at the Dairy Show. — Silver Medal to The Dairy Supply Co., Ltd., for Glass-lined Pasteuriser, Type "J"; The Dairy Supply Co., Ltd., for "Goliath" (U.S.) Heavy Duty Ice Cream Freezer. Bronze Medal to G. W. King, Ltd., for "Louden King," Individual Automatic Drinking Bowl; The De Laval Chadburn Co., Ltd., for "Alfa Laval" Milking Machine; G. S. Clayton for Filling Machine.
- Class 142.—A TIE OR OTHER APPLIANCE for securing a Cow in its Stall, allowing reasonable movement and facility of release in case of emergency. Cost to be taken into consideration.—*First Prize* (£3 and Silver Medal) to G. W. King, Ltd. *Second Prize* (£2 and Bronze Medal) to Beatty Bros., Ltd.
- Class 143.—SMALL ICE CREAM EQUIPMENT to deal with one to three gallons per hour, suitable for the use of Tenant Farmers and other small producers.—No award.

JUNKET-MAKING CONTESTS.

Class 144.—JUNKET MADE WITH MILK AND CREAM.

SECTION A.—*First Prize* (£2) to Miss K. Rogers. *Second Prize* (£1) to Miss M. C. Wakeham. *Third Prize* (10s.) to Mrs. M. Pooley.

SECTION B.—*First Prize* (£2) to Miss B. F. Pascoe. *Second Prize* (£1) to Miss E. J. Edwards. *Third Prize* (10s.) to Miss K. Davis.

SECTION C.—*First Prize* (£2) to Miss E. Challenger. *Second Prize* (£1) to Miss M. H. Edwards. *Third Prize* (10s.) to Mrs. R. J. Dunstan.

Class 145.—CHAMPION CONTEST.—Prize (Silver Medal) to Miss M. Rounswell.

BUTTER-MAKING CONTESTS.

Class 146.—Open to those who have never won a Prize at any Show wherever held.

SECTION A.—*First Prize* (£3) to Miss B. Larty. *Second Prize* (£2) to Miss E. Challenger. *Third Prize* (£1) to Miss B. F. Pascoe.

SECTION B.—*First Prize* (£3) to Miss V. E. Jones. *Second Prize* (£2) to Miss H. Morgan. *Third Prize* (£1) to Miss P. M. Marrott.

SECTION C.—*First Prize* (£3) to Miss N. Davies-Cooke. *Second Prize* (£2) to Miss G. Morgan. *Third Prize* (£1) to Miss D. D. Pascoe.

Class 147.—Open to Students who have attended Classes at the British Dairy Institute, Reading, for not less than one month during the past two years.
—*First Prize* (£3) to Miss M. A. Cautley. *Second Prize* (£2) to Miss B. Russell-Smith. *Third Prize* (£1) to Miss M. E. Todd.

Class 148.—Open Contest for Men and Women.

SECTION A.—*First Prize* (£3) to Miss M. E. Thomas. *Second Prize* (£2) to Mrs. M. Watson. *Third Prize* (£1) to Miss B. J. Mudd.

SECTION B.—*First Prize* (£3) to Miss F. Scott. *Second Prize* (£2) to Miss R. E. Mitchell. *Third Prize* (£1) to Miss L. Tombs.

SECTION C.—*First Prize* (£3) to Miss F. Jones. *Second Prize* (£2) to Miss E. J. Edwards. *Third Prize* (£1) to Miss N. B. Mitchell.

SECTION D.—*First Prize* (£3) to Miss B. F. Pascoe. *Second Prize* (£2) to Miss O. J. Robison. *Third Prize* (£1) to Miss M. J. Harris.

SECTION E.—*First Prize* (£3) to Miss M. Rounswell. *Second Prize* (£2) to Mrs. A. Morgan. *Third Prize* (£1) to Miss S. Davies.

Class 149.—Open to First Prize Dairy Show Winners of 1925.—*First Prize* (£3 and Silver Medal) to Miss F. Jones. *Second Prize* (£2) to Miss B. F. Pascoe. *Third Prize* (£1) to Miss B. Larty.

Class 150.—CHAMPION CONTEST (open to Winners of First Prizes in the preceding Classes or at any Shows of the British Dairy Farmers' Association, Champions of any year excepted).—*First Prize* (Gold Medal) to Miss M. E. Thomas. *Second Prize* (£3) to Miss J. James. *Third Prize* (£2) to Miss J. Prichard.

MILKERS' CONTESTS.

Class 151.—Open to Men and Women of 18 years and over.—Equal *First Prizes* (£5 10s. each) to Miss E. Bebbington and T. M. Kent. *Third Prize* (£3) to Miss E. E. Potts. *Fourth Prize* (£2) to J. Marking. Equal *Fifth Prizes* (£1 each) to R. D. Hughes and A. Logan.

Class 152.—Open to Boys and Girls under 18 years.—*First Prize* (£7) to Miss D. Lloyd. *Second Prize* (£4) to C. W. Hobson. *Third Prize* (£3) to N. Jones. *Fourth Prize* (£2) to R. A. Newton. *Fifth Prize* (£1) to F. W. Curtis.

Class 153.—CHAMPION CONTEST (open to First Prize Winners in preceding Classes or at the Shows of 1922, 1923, and 1924, of The British Dairy Farmers' Association, Champions of any year excepted).—Prize (Gold Medal and £2) to Miss E. Bebbington.

COW-JUDGING CONTEST.

Class 154.—Open to Teams of Students from Agricultural Colleges, Farm Institutes, and County Council Classes.—Prize (B.D.F.A. Challenge Bowl) to The East Anglian Institute of Agriculture, Chelmsford, and Bronze Medal to W. M. Haddon, Miss O. J. Robison and G. M. Wooldridge.

THE OBJECTS OF THE ASSOCIATION

are the improvement of

DAIRY STOCK AND DAIRY PRODUCE,

by encouraging the Breeding and Rearing of Stock for the special purpose of the Dairy; a larger and better production of Milk, Butter, Cheese, and Eggs; the Erection of Improved Dairy Buildings, and the Invention of New or Improved Dairy Utensils, Machinery, Implements, and Scientific Appliances. The Association also stimulates the Breeding and Rearing of Poultry, &c. By means of Papers in the Society's *Journal* (published annually), Annual Conferences in different dairy districts, Lectures, and Discussions, and in other ways, efforts are continually being made to disseminate a more thorough knowledge of Dairy husbandry. Moreover, prompt action is taken by the Association for the protection of the interests of Dairy Farmers in the event of their being threatened by legislation or by Departmental Orders.

Prizes to the value of about £3,500 are annually offered for competition at the Dairy Show, held at the Royal Agricultural Hall, Islington, London.

It is difficult to over-estimate the importance and need of greater attention being paid to the Dairy industry. It is admitted that by improved modes of managing Milk and its products, the wealth obtained from the Milch Cows of the country could be increased most materially. The Council, therefore, appeal to Agriculturists of all classes, and Dairy Farmers in particular, to become Members of the Association, and practically aid in developing its usefulness.

The advantages of Membership comprise :—

- 1.—A free pass to all the Society's Dairy Shows, available each day during the Exhibition, with the privilege of admitting free (by ticket) a friend on any one day.
- 2.—The privilege of participating, at specially low charges, in the Dairy Conferences at home or abroad, organised by the Association.
- 3.—The Exhibition of Live Stock, Dairy Produce, and Utensils, at a reduced scale of fees to those whose subscriptions for the past year and current year are paid.
- 4.—A copy (free by post) of the *Journal* of the Association, published annually.
- 5.—Analysis of one sample of a dairy product free of charge (Paras. 1—9); and subsequent analyses by the Consulting Chemist, at low fees, of samples of milk, cream, butter, cheese, feeding stuffs, water, soil, manures, &c., and advice on dairy matters connected with his Department.

- 6.—Bacteriological examination of dairy produce, &c., at reduced fees.
- 7.—Examination by the Consulting Pathological Bacteriologist, for particular pathogenic or disease-producing organisms.
- 8.—Professional advice and assistance at a reduced scale of charges, in any case of disease among the live stock of the farm
- 9.—In any case of hardship due to administration of legal or other regulations, Members are recommended to send details of such case at once to the Secretary. Advice and assistance will be given by the Association upon the recommendation of the Committee appointed to deal with such matters.

The Annual Subscription is £1, but Dairy Instructors and Students are admitted on payment of 10s. 6d. per annum. The latter sum entitles Dairy Instructors to all privileges, except the reduced fees for exhibition at the Shows.

Members' Chemical Privileges.

Free Analysis.—Each member, whose subscription for the current year is paid, is entitled to one analysis of a dairy product (paragraphs 1 to 9 below) free of charge. A stamped addressed envelope must be forwarded with the sample for the return of the report of the analysis.

Further analyses will be made by the Association's Consulting Chemist at the following reduced fees:—

1.—MILK (Fresh).					£	s.	d.
Estimation of Fat and Total Solids...	...	...	...	...	0	1	0
Estimation of Fat, Casein, Albumen, Sugar, and Ash	...	...	...	...	0	10	0
2.—MILK (Sour).							
Estimation of Fat and Total Solids	...	...	...	...	0	5	0
3.—SKIMMED MILK.							
Estimation of Fat and Total Solids...	...	...	...	...	0	5	0
4.—CONDENSED MILK.							
Estimation of Fat	...	...	...	...	0	5	0
Estimation of Fat, Casein, and Solids	...	...	...	...	0	10	0
Estimation of Cane Sugar (extra)	...	...	...	...	0	5	0
5.—HUMANISED MILK.							
Complete Analysis	...	...	...	...	1	1	0
6.—CREAM.							
Estimation of Fat	...	...	...	...	0	5	0
Estimation of Fat, Casein, and Solids	...	...	...	...	0	12	6
Examination for Foreign Fats (extra)	...	...	...	...	0	10	6
7.—BUTTER.							
Estimation of Water, Fat, Casein, and Ash	...	...	...	...	0	10	0
Examination for Foreign Fats (extra)	...	...	...	...	0	10	6
8.—CHEESE.							
Estimation of Water, Fat, Casein, and Ash	...	...	...	...	0	10	6
Examination for Foreign Fats (extra)	...	...	...	...	0	10	0
9.—RENNET.							
Examination of Strength	...	...	...	...	0	5	0

10.—CAKES AND MEALS.						£	s.	d.
Estimation of Oil only	...	...	...	...	...	0	5	0
Estimation of Oil, Albuminoids, Carbo-hydrates, &c.	...	...	...	...	...	0	15	0
11.—GRASS, SILAGE, ROOTS, &c.								
Estimation of Oil, Albuminoids, Carbo-hydrates, &c.	...	...	...	...	...	1	10	0
12.—MANURES								
Estimation of Soluble Phosphoric Acid	...	...	...	...	...	0	5	0
Estimation of Soluble and Insoluble Phosphoric Acid	...	...	...	...	...	0	7	6
Estimation of Citric Soluble Phosphoric Acid	...	...	...	...	...	0	7	6
Estimation of Nitrogen	...	...	...	...	...	0	5	0
Estimation of Potash	...	...	...	...	...	0	7	6
13.—SOIL.								
Estimation of Lime	...	...	...	...	...	0	5	0
Analysis and Report	...	...	...	...	...	2	2	0
14.—WATER.								
Analysis for Drinking or Dairy Purposes	...	...	...	...	...	1	1	0
15.—POISONS.								
Examination of a Substance for Mineral Poisons	...	...	...	...	...	2	2	0
Examination for Organic Poisons (Alkaloids, &c.)	...	...	...	...	...	3	3	0
16.—CIDER AND FERMENTED DRINKS.								
Estimation of Alcohol	...	...	...	...	...	0	7	6
Estimation of Alcohol, Sugar, Acidity, &c.	...	...	...	...	...	0	15	0
17.—PRESERVATIVES.								
Examining a Substance for Boracic Acid or Salicylic Acid, &c., for each Substance sought	...	...	...	...	...	0	2	6
Estimation of the quantity of Boracic Acid	...	...	...	...	...	0	10	6
18.—CONSULTATION.								
For Letter in reply to Enquiry	...	...	...	...	...	Free		
For Report on a Subject	...	...	...	...	...	0	7	6
For Personal Interview	...	...	...	...	...	0	10	6
For Special Consultation	...	...	...	...	...	1	1	0

NOTE.—The Consulting Chemist will be prepared to quote reduced terms to members requiring a number of analyses at frequent intervals.

Instructions for Taking Fair Samples for Analysis.

Dairy Produce.—Milk should be sent in a well-corked 8-oz. clear bottle. The milk should quite fill the bottle. Butter or cheese, about 8 ounces; the former in a gallipot well tied down.

Soils.—A block of soil about four or five inches square, and nine inches deep, should be sent in a strong box by rail.

Artificial Manures.—Take a handful of manure out of at least half a dozen bags, mix these rapidly and thoroughly, breaking down all lumps. Forward about a pound of the mixture in a tin box, and retain the remainder. Samples of manure should be sent immediately after the delivery of the bulk, and before settling the account. All manures should be bought subject to analysis.

Feeding Materials.—Feeding cakes, meals, or grains : about a pound should be sent in a bag or box. Grass and hay : a bundle of a few pounds weight. Silage : a six-inch cubic block, packed closely in a box to keep it compressed.

Waters.—A Winchester quart glass-stoppered bottle should be procured from a druggist, well washed out with the water, then completely filled, the stopper tied securely down, and the bottle packed in a box and sent by rail.

N.B.—In order to prevent disappointment, the Chemist requests that, as far as possible, Members desiring to hold a personal consultation should make an appointment by letter. Between 10 and 4 are the hours most convenient. The fees for analyses of artificial manures and feeding stuffs are only applicable to Members who are not commercially engaged in their manufacture or sale. All communications intended for the Analytical and Consulting Chemist must be addressed direct to Dr. T. J. DRAKELEY, Ph.D., M.Sc., F.I.C., F.C.S., M.I.M.E., 28, Russell Square, London, W.C.1.

Members' Bacteriological Privileges.

Samples of dairy produce, &c., submitted for a bacteriological count, or for examination for *Bacillus Coli*, &c., should be forwarded to Dr. T. J. DRAKELEY, Ph.D., M.Sc. F.I.C., F.C.S., M.I.M.E., 28, Russell Square, W.C.1.

Examinations will be made at the following fees :—

MILK.		£	s.	d.
Bacteriological Examination of " Certified," " Grade A," or " Pasteurised " Milk under the Milk (Special Designations) Order, 1922	... ..	0	10	6
Cultural Examination for a particular organism	... ..	2	2	0
CREAM, BUTTER, CHEESE.				
Cultural Examination for a particular organism	... ..	2	2	0

Directions for Sending Samples.

Samples of milk (one pint) and cream (half pint) should be forwarded in wide-mouthed stoppered bottles which have previously been thoroughly cleaned, and then rinsed several times with very hot, almost boiling, water.

Butter is best sent in a $\frac{1}{2}$ -lb brick or roll, just as it was made up, wrapped in grease-proof paper, and packed in a box.

If the *Cheese* is small, send a whole one ; otherwise forward a square block of not less than one pound, and not a wedge-shaped piece. Wrap in grease-proof paper and pack in a box.

Examinations for Pathogenic Organisms.

EXAMINATIONS BY DR. ANDREWES, Pathological Laboratory,
St. Bartholomew's Hospital, London, E.C. 1.

MILK.							f	s.	d.
Cultural and experimental examination for a particular pathogenic organism	...	...	...	...	...	...	2	2	0
PASTEURISED OR STERILISED MILK.									
Cultural and experimental examination for a particular pathogenic organism	...	...	...	...	...	...	1	1	0
CREAM, BUTTER OR CHEESE.									
Cultural and experimental examination for a particular pathogenic organism	...	...	...	...	...	...	2	2	0
WATER.									
Cultural and experimental examination for a particular pathogenic organism	...	...	...	...	...	...	2	2	0

Members of the Association who require professional assistance in any case of disease among their animals must apply direct to the Consulting Veterinary Surgeon, Professor G. H. WOOLDRIDGE, Royal Veterinary College, Camden Town, London, N.W. 1, whose scale of charges is as follows:—

	l	s.	d.
Personal Consultation	0	10	6
Post-mortem Examination and Report	0	10	6
Consultation by Letter	0	5	0
Visit and Report, in case of an outbreak of disease, in addition to personal and travelling expenses, per day	2	2	0

Members' Botanical Privileges.

The Council have fixed the following rates of charge for the examination of Plants and Seeds for the *bonâ fide* and individual use and information of Members of the Association (not being Seedsmen), who are particularly requested to mention the kind of examination they require, *and to quote its number in the subjoined Schedule.*

No.	£	s.	d.
1.—A Report on the purity, and amount or nature of foreign materials, of a sample of seed	0	1	0
2.—A Report on the perfectness and germinating power of a sample of seed	0	1	0
Nos. 1 and 2 together	0	1	6
3.—Determination of the species of any weed or other plant, or of any epiphyte or vegetable parasite, with a report on its habits, and the means for its extermination or prevention	0	1	0
4.—Report on any disease affecting farm crops	0	1	0
5.—Determination of the species of a collection of natural grasses found in any district, with a report on their habits and pasture value	0	4	0

Instructions for Selecting and Sending Samples.

The utmost care must be taken to secure a fair honest sample. When possible, at least one ounce of grass and other small seeds should be sent, and two ounces of cereals or larger seeds. Grass seeds should be sent at least four weeks, and clover seeds two weeks before they are to be used. In collecting specimens of plants, the whole plant should be taken up, and the earth shaken from the roots. If possible, the plant must be in flower or fruit. They should be packed in a light box, or in a firm paper parcel. Specimens of diseased plants or of parasites should be forwarded as fresh as possible—either in a bottle, or packed in tinfoil or oil silk. All specimens should be accompanied with a letter specifying the nature of the information required, and stating any local circumstance (soil, situation, &c.) which, in the opinion of the sender, would be likely to throw light on the inquiry.

The charge for examination must be paid, in Postage Stamps or otherwise, at the time of application, and the carriage of all parcels must be prepaid. It must be distinctly understood that *no notice can be taken* of any application unless it is accompanied by the proper fee.

THE BRITISH DAIRY INSTITUTE, READING.

THE British Dairy Institute was established at Aylesbury in 1888, by the British Dairy Farmers' Association, and several hundred Students were successfully trained there in different branches of dairy work. In order that Students might have an opportunity of combining with the practical study of dairying a more complete scientific instruction, the Institute was, in 1896, moved to Reading, and placed under the management of a Committee representing the British Dairy Farmers' Association and the University College, Reading.

The Institute contains large milk-receiving, butter-making, and milk-testing rooms; rooms for the manufacture of pressed, unpressed, and soft cheeses; and rooms for the ripening and drying of different varieties of cheese; besides reading, lecture, and common rooms. It is equipped with the best modern apparatus for the manufacture of dairy produce, including power-driven separating and buttermaking plant, and cold storage plant.

The instruction given is both practical and theoretical, and is arranged to suit the requirements of those who need either elementary or advanced dairy instruction, or who wish to perfect themselves in the manufacture of any special variety of dairy produce. Instruction is provided for students who wish to specialize in Bacteriology or Chemistry applied to dairying.

The Institute is open throughout the year, except during the Winter Vacation of eight weeks, which commences about the middle of November.

The Courses at the Institute are open to men and women above the age of 16 years. Students may join at any time while the Institute is open, and for any period not less than a week, but those who desire to take a thorough short course in buttermaking or cheesemaking are recommended to attend the Six Months' or Three Months' Joint Course in Dairying.

The manufacture of hard-pressed and soft cheeses is taught during the whole of the time when the Institute is open, but Stilton and other blue-veined varieties are not made until May.

Instruction is given in buttermaking, clotted-cream making, the testing and analysis of milk, the management of various types of separators, the handling and care of milk, and the preparation of starters, &c. Lectures and demonstrations are usually given in the afternoons, the mornings being chiefly devoted to practical dairy work.

Practical and theoretical instruction in buttermaking and cheesemaking (including hard-pressed, blue-veined, and soft cheese), £1 per week; £10 for three months; £18 for six months.

Practical and theoretical instruction in buttermaking only, 10s. per week (or part of week).

A full Prospectus will be sent on application to the Secretary, British Dairy Institute, Reading.

B. RAVENSCROFT,
Secretary, B.D.F.A.

28, Russell Square, London, W.C. 1.

**Fiftieth Half-yearly Report of the Council
presented to the Members at the Meeting
held at the Dairy Show, Royal Agricultural
Hall, Islington, London, N.1, on Wednesday,
October 21st, 1925.**

ENTRIES for the 1925 Dairy Show are again high—indeed, the Cattle entries have exceeded expectations, as it was thought that the qualifying milk yield would have materially reduced last year's entry.

The Council has given consideration to the question of admitting only cows that do not react to the Tuberculin Test, but the Council came to the conclusion that the time was not opportune.

The membership of the Association is steadily increasing, and with a view to its further stimulation the Council this year erected a pavilion at the Royal Chester Show and at the Lewes Show. At the former, refreshment was obtainable, and those who availed themselves of the facilities expressed keen appreciation of the venture.

This year the Association is to have its own Stand at its own Show—taking the view that if Members cannot be secured at a Dairy Show little can be expected from other Shows. Thus, all are asked to visit the Association's Stand, Number 102, in the Main Hall. Make your appointments there—and bring your friends.

After a careful survey of the Association's financial position the Council voted, in February last, the further sum of One Thousand Pounds to the National Institute for Research in Dairying.

The Annual Conference was held in Somersetshire, Gloucestershire, and Wiltshire, with Bristol as a centre, and those who were with the party will long remember the generous hospitality shown and the memorable rides taken through the most delectable parts of these famous counties.

Major J. A. Morrison has again kindly consented to allow his name to go forward for re-election as President, and in support of his nomination your vote will shortly be asked.

The following list of Vice-Presidents has been prepared, for which your approval will be asked :—

The Marquis of Crewe, K.G., Crewe Hall, Crewe.
Earl of Dartmouth, P.C., Patshull, Wolverhampton.
Viscount Elveden, C.B., M.P., 11, St. James's Square,
London, S.W.1.

Lord Kenyon, Gredington, Whitchurch, Salop.
Lord Strachie, Sutton Court, Pensford, Bristol.
Major Lord O'Hagan, 16, Eaton Square, London,
S.W. 1.

Lord Desborough, K.C.V.O., Taplow Court, Taplow,
Bucks.

Lord Bledisloe, K.B.E., Lydney Park, Glos.
Sir Gilbert Greenall, Bart, G.V.O., Walton Hall,
Warrington.

. S. Palgrave Page, J.P., 27, Oakwood Court, W. 14.
G. Titus Barham, Sudbury Park, Wembley, Middlesex.
S. R. Whitley, J.P., Rookwood, Shinfield, Reading.

In accordance with the Articles of Association the following members of Council retire this year :—

W. Ashcroft, Surrey.
W. S. Brocklehurst, Bedfordshire.
William Burkitt, Durham.
Jesse Crumpler, Somerset.
Mrs. Jervoise, Hampshire.
Capt. R. Oliver-Bellasis, Warwickshire.
Sir Sidney J. Pocock, J.P., Surrey.

Robert Shanks, Sussex.

Miss J. Stubbs, Lancashire.

E. P. F. Sutton, Berkshire.

E. G. F. Walker, Somersetshire.

Dr. R. Stenhouse Williams, Berkshire.

With the exception of Mr. William Ashcroft and Sir Sidney J. Pocock all are seeking re-election. The loss of Mr. Ashcroft, through failing health, will be severely felt, and by his retirement the Council and the Education Committee lose one of its most valued Members. He joined the Association in 1882, and was elected to the Council in 1884.

Sir Sidney Pocock has been associated with the Council since 1898, and in those days was a most strenuous supporter. In more recent times he has been much occupied in business engagements, and feeling that he is unable to attend the Meetings as frequently as he would wish, considers it his duty to retire.

The following Members, having been duly proposed and seconded, seek election on the Council :—

Lord Lewisham (Dairy Farmer), Godmersham Park, Canterbury, proposed by S. R. Whitley, seconded by James Mackintosh.

R. Fletcher Hearnshaw (Farmer), Fox Hill, Burton Joyce, Notts, proposed by S. Palgrave Page, seconded by Colonel Caddick.

W. H. Hobson (Farmer), Woodhey Hall, Nantwich, proposed by G. H. Proudlove, seconded by Percy Smith.

Mrs. Martha Reeves, Knapp House, Clevedon, Somerset, proposed by G. Titus Barham, seconded by R. C. Assheton.

William Rice (Secretary, Poultry Club), 3, Ludgate Broadway, E.C., proposed by C. N. Goode, seconded by Charles E. Brooke.

The following Resolutions have been passed :—

June 10th, 1925.

“That the Ministry of Agriculture instruct the Railway Companies to disinfect all Trucks used for the conveyance of Live Stock in a much more drastic and

efficient manner immediately after the removal of such stock, and that at least once a month all Cattle trucks shall be disinfected in such a manner."

September 16th, 1925.

"That it is desirable to hold the World's Dairy Congress in 1928."

Mr. Herbert J. Page will be proposed for re-election as the Association's Official Auditor, with Messrs. P. Hay, H. E. Hughes and W. E. Manchester, as Hon. Auditors.

By Order of the Council,

B. RAVENSCROFT,

Secretary.

28, RUSSELL SQUARE,
LONDON, W.C. 1.

October, 1925.

FIFTIETH ANNUAL REPORT OF THE COUNCIL

TO THE
GENERAL MEETING OF MEMBERS, FOR
THE YEAR ENDING 31st DECEMBER, 1925,

Wednesday, March 3rd, 1926.

IN presenting this fiftieth Annual Report it is pleasing to be able to record a healthy financial situation. The Invested Funds of the Association total £13,335, and although the excess of Income over Expenditure for the past year is but £792, it should be borne in mind that a donation of £1,000 has been made to the National Institute for Research in Dairying.

Early in the year, the Council decided to erect a Tent at the Royal Agricultural Show at Chester, at the Sussex Agricultural Show at Lewes, and a Stand at its own Dairy Show in October. Undoubtedly, from the membership viewpoint, the finest results came from the Dairy Show, thereby justifying the contention that the germ for the Association's expansion can best be found within its own activities.

At the close of 1925 the Membership stood at 1,623 against 1,468 at the close of 1924, an increase of 155, whereas the average increase for the past five years has been 97.

At the abandonment of the preliminary organisation set up in respect to a proposed International Dairy Congress in this Country, the British Dairy Farmers' Association stepped into the breach, called

together the interests mainly concerned, with the result that a new organisation has been set up and is now busily going into ways and means for an International Dairy Congress in 1928.

The Dairy Show, of 1925, maintained its popularity in all respect, and it is a matter for profound satisfaction alike to the Members and Council that in face of circumstances which might well have resulted in a balance on the wrong side the accounts should show a balance which is only a little less than that of 1924.

As a result of Examinations held at the British Dairy Institute, Reading, Studley College, Studley, The East Anglian Institute, Chelmsford, and the Cannington Court Farm Institute, Bridgwater, 31 Diplomas with Silver Medals, 81 Buttermaking, and 57 Cheese-making Certificates have been awarded.

Medals granted under the medal Distribution Scheme have been as under :—

							Silver	Bronze
Dairy Cattle	...	...	...	...	...	...	12	4
Produce	...	...	...	...	...	...	2	7
Buttermaking	...	...	...	...	...	...	5	2
Clean Milk Competitions			...	...	...	...	4	1
Cow Judging Contest	...	..	..	...	...	...	1	2
Dairy Herds Competition		...	...	...	...	...	1	1
							<hr/> 25	<hr/> 17
							<hr/> <hr/>	<hr/> <hr/>

The Viscount Lewisham and Mrs. M. Reeves have been elected to fill the vacancies on the Council.

In connection with Mr. Spahlinger's treatment of Tuberculosis the Council has approved the grant of £100 to the funds of the Bovine Tuberculosis Committee.

British Dairy Farmers' Association.

FINANCIAL STATEMENTS.

Dr. GENERAL INCOME AND EXPENDITURE ACCOUNT for the Year ended December 31st, 1925.				Gt.			
EXPENDITURE.				INCOME.			
		£	s. d.			£	s. d.
Education and Examinations—				Subscriptions	...	...	...
Reading ...	£194 2 7			Examinations—	...	...	1,436 8 6
Chelmsford ...	13 1 5			Reading ...	...	£79 5 0	
Studley ...	14 19 0			Chelmsford ...	...	13 1 5	
Somerset ...	12 5 2			Studley ...	...	14 19 0	
		234	8 2	Somerset ...	...	12 5 2	
Journal ...	...	582	12 8	Journal ...	...	...	119 10 7
Medal Scheme ...	...	28	10 4	Contributions to Prize Fund	...	...	149 6 11
Bank Charges ...	...	24	14 4	Entry Fees, Competitive and Non-Competitive...	...	...	419 17 6
Rent ...	...	240	0 0	Sales of Exhibits	...	...	9,079 12 11
Prizes to Exhibitors	...	3,603	19 11	Admission Money	...	...	1,523 15 2
Sales of Exhibits	...	1,363	13 1	Sales in Working Dairy	...	...	4,239 5 3
Dairy Show—Hire of Hall, Fittings, Postage and	...	6,791	4 0	Catalogue Sales and Advertisements	...	...	584 19 5
Sundry Expenses	...	888	12 9	Interest on Investments—	...	...	1,105 5 0
Catalogues	...	1,080	0 0	Taxed before receipt	...	£408 13 3	
Salaries	...	1,663	8 5	Untaxed before receipt	...	100 0 0	
Wages and Labour	...	275	12 1	Bank Deposit	...	34 7 11	
Printing, Stationery, Postage, and Sundry Office	...	169	1 9	Hire of Council Room	...	...	543 1 2
Expenses	...	157	17 6		...	21 0 0	
Railway Fares for Attendance at Council Meetings	...	24	8 0				
Auditors' Fees and Officers' Retaining Fees	...	36	9 0				
Depreciation on Furniture	...						
Income Tax, 1924-1925	...						
Donations—							
National Institute for Research	...						
in Dairying ...	£1,000 0 0						
Central Chamber of Agriculture	5 0 0						
Royal Agricultural Benevolent	...						
Society	10 10 0						
		1,015	10 0				
Corporation Duty, 1921-1925	...	82	9 8				
Stands at Agricultural Shows	...	102	4 3				
Entry Fees returned on account of Foot and Mouth	...						
Disease	...	65	0 0				
BALANCE, being excess of Income over Expenditure	...	792	6 6				
		£19,222	2 5			£19,222	2 5

Dr.	STATEMENT OF ASSETS AND LIABILITIES, December 31st, 1925.				Cr.			
	LIABILITIES.	£	s.	d.	ASSETS.	£	s.	d.
Sundry Creditors	...	...	...	75 19 8	Investments at Cost Price—			
Conference Account	...	...	...	11 14 10	£375 Southern Railway 4% De-			
Surplus of Assets over Liabilities	...	...	...		venture Stock	265	0	0
at 31st December, 1924...	£13,906	4	10		£375 London Midland & Scottish			
Add Excess of Income over	...	...	...		Rly. 4% Debenture Stock	280	0	0
Expenditure, 1925	...	792	6	6	£500 India 3% Stock	265	0	0
				14,698 11 4	£2,000 War 5% Stock	1,701	9	0
					£1,500 L.C.C. 3% Stock	783	17	0
					£400 Hertfordshire 6% Stock	389	1	0
					£2,000 Metropolitan Water Board			
					" B " 3% Stock...	1,037	13	0
					£1,000 Victoria 5½% Stock	1,017	7	8
					£2,000 New South Wales 5% Stock	1,990	4	0
					£1,000 Tasmanian 5% Stock	992	12	0
					£6,000 Conversion Loan 3½%	4,613	1	0
								*13,335 4 8
					Furniture and Appliances	243	19	7
					Less 10 per cent. Depreciation	24	8	0
								219 11 7
					British Dairy Institute: Value of			
					Appliances at Reading	...		
					Sundry Debtors	22	6	5
					" on account of Dairy			
					Show, 1925	43	7	10
					Cash at Bank and in hand...			
					*The value, according to Market Price, of these			65 14 3
					Investments at 31st December, 1925, was			879 16 1
					£14,052.			£14,786 5 10

REPORT OF THE AUDITORS TO THE MEMBERS OF THE BRITISH DAIRY FARMERS' ASSOCIATION.

We have audited the foregoing Statement of Assets and Liabilities and the Income and Expenditure Account with the books and accounts of the Association. We have received all the information and explanations we have required. In our opinion such Statement of Assets and Liabilities is a full and fair statement containing the particulars required by the Regulations of the Association, and properly drawn up so as to exhibit a true and correct view of the state of the Association's affairs according to the information and explanations we have received and as shown by the Books.

(Signed) HERBERT J. PAGE, *Chartered Accountant*,

36, Walbrook,

PERCY T. HAY,

H. E. HUGHES,

W. E. MANCHESTER

London, E.C. 4

Auditors.

15th February, 1926.

British Dairy Farmers' Association.

MEDAL SCHEME.

Special Prizes at Educational Institutions and Country Shows.

The Council of the British Dairy Farmers' Association is prepared to consider applications from Educational Centres and Approved Societies in the United Kingdom for their Gold, Silver, and Bronze Medals to be awarded in connection with dairying and dairy farming under the following conditions, viz. :—

1. All applications must be made on our official form and must clearly state the object for which the Medal or Medals are required.
2. Only one application from any Institution or Society can be considered in any one year.
3. The application must be repeated annually if Medals are again required.
4. A copy of the Proposed Prize List, showing the Conditions of the Award of the Medal and the name of the judge, should accompany the application, and the offer of a Medal cannot be confirmed until the Prize List has been approved.
5. The British Dairy Farmers' Association stipulates that no entry fee shall be charged in respect of these Medals, they being offered as Special Extra Prizes.
6. Notification of the award, with the winner's full name and address, to be forwarded to the Secretary, British Dairy Farmers' Association, 28, Russell Square, London, W.C.1, within 14 days of the award being made.
7. A person may not receive more than one Medal under this Scheme for the same subject or exhibit during any one year.

STUDENTS.—The B.D.F.A. Silver Medal for Students is reserved for those who have obtained the B.D.F.A. Diploma.

The B.D.F.A. Bronze Medals may be awarded on application to Students gaining the first position in short course Examinations and the prospectus of the course must be forwarded with the application for the Medal.

DAIRY PRODUCE AND BUTTERMILKING.—The B.D.F.A. will consider applications on behalf of County or similar Shows for a Silver Medal as a Championship award.

The B.D.F.A. Bronze Medals or Certificates may be available for local Shows, and in each case shall only be awarded to the best exhibit or competitor.

CATTLE.—The B.D.F.A. Silver Medals will only be awarded at County and similar Shows to cows or heifers' milk recorded under the Ministry of Agriculture Scheme.

The B.D.F.A. Silver Medals will only be awarded to Bulls out of recorded cows.

The B.D.F.A. Bronze Medals for cattle will be available only at Local Shows under similar conditions.

CLEAN MILK COMPETITIONS.—The B.D.F.A. Gold Medal may be available, on application, to the winner of clean milk competitions of six months or more duration. Silver Medals for clean milk competitions of shorter duration.

In the event of any dispute as to the interpretation of these Rules, the Council of the British Dairy Farmers' Association reserves full power of decision, and in the event of the Medal not being awarded in accordance with the above Rules and Conditions, the Council reserves the right to withhold the Medal altogether.

BY ORDER OF THE COUNCIL.

AWARDS DURING 1925.

Applicant.	Show or Examination held at	Date.	Medal.	Winner and Object.
Kent Education Committee	Kent	Jan.-April	Silver...	Lady Lewisham, Winner of Clean Milk Competition.
Wiltshire County Council	Wiltshire	"	Silver...	Major R. F. Fuller, Winner of Grade "A," Clean Milk Competition.
Buckinghamshire County Council	Bucks	Feb.-May.	Silver...	Mrs. Willmott, Winner of Clean Milk Competition (Championship).
"	"	"	Bronze	J. Gregory, Winner of Clean Milk Competition (Large Herds).
Port Elizabeth Agricultural Society	Port Elizabeth	Mar. 24-27	Silver...	P. B. B. Naude, Friesland Cow, "Hugenoot Aletta," gaining highest points in Milking Trials for Registered Animals.
Devon County Agricultural Association	Plymouth	May 12-14	Silver...	A. W. & N. D. Miller. "Heather," as best Milk Recorded South Devon Cow.
"	"	"	Silver...	Miss G. M. Ayre. Champion Buttermaker.
Newark Agricultural Society	Newark	May 14 & 15	Bronze	Miss E. C. Clay. Champion Buttermaker.
Somerset County Agricultural Association	Wells	May 19-21	Silver...	F. W. Morley. Shorthorn Cow, "Lizzie 13th," as best Milk Recorded Dairy Cow.
"	"	"	Bronze	F. S. Francis. Shorthorn Bull, "Colescomb Dolphin," as best Dairy Bull out of a Recorded Cow.
Yealmonpton Agricultural Association	Yealmonpton	June 3	Bronze	Mrs. R. H. Barratt. Clotted Cream, as best exhibit of Cream or Butter.
Royal Counties Agricultural Society	Portsmouth	June 3-6	Silver...	Mrs. M. Watson. Champion Buttermaker.
Hertfordshire Agricultural Society	Hatfield	June 4	Silver...	C. Roper. "Lenborough Beatrice 2nd," as best Milk Recorded Dairy Shorthorn Cow.
Suffolk Agricultural Association	Saxmundham	June 4 & 5	Bronze	Miss C. J. Thomson. Champion Buttermaker.
Cambridgeshire and Isle of Ely Agricultural Society	Ely	June 9	Silver...	W. Tebbs. Shorthorn Cow, "Dorothy," as best Milk Recorded Dairy Cow or Heifer.

AWARDS DURING 1925.—Continued.

Applicant.	Show or Examination held at	Date.	Medal.	Winner and Object.
Royal Cornwall Agricultural Association	Helston	June 10 & 11	Silver...	Mrs. R. C. Bainbridge. Guernsey Cow, "Tregonning Lucky," as the Milk Recorded Cow gaining highest points in the Milking Trials.
"	"	"	Silver...	Mrs. E. Cowling. Best exhibit of 2 lbs. Butter.
Essex Agricultural Society	Romford	June 10 & 11	Silver...	T. L. Martin. Shorthorn Cow, "Standon Premier Beauty," as best Milk Recorded Dairy Cow or Heifer.
"	"	"	Silver...	Miss O. J. Robison. Champion Buttermaker.
Sussex County Agricultural Society	Lewes	July 15 & 16	Silver...	A. Wilson. Shorthorn Cow, "Annie Laurie," as best Milk Recorded Dairy Cow.
Yorkshire Agricultural Society	Bradford	July 22-24	Silver...	Mrs. C. Yates. Champion Buttermaker.
Tring Agricultural Society	Tring	Aug. 6	Silver...	G. P. Golden. Heifer "Lady Clovelly," as best Milk Recorded Dairy Shorthorn Cow or Heifer.
Harrogate Agricultural Society	Harrogate	Aug. 7 & 8	Bronze	Mrs. L. R. Mildon. Best exhibit of 2 lbs. Butter.
Penrith Agricultural Society	Penrith	Aug. 11	Bronze	J. Smith. Shorthorn Cow, "Julia," as best Milk Recorded Dairy Cow.
Suffolk Milk Recording Society	Suffolk	Sept.-Dec.	Silver...	S. Heaton. Winner of Clean Milk Competition.
Gloucester Erch Agricultural Show	Pwllheli	Sept. 3	Bronze	G. Jones. Cow, "Myra 2nd," as best Milk Recorded Welsh Black Cow or Heifer.
"	"	"	Bronze	G. Jones. "Snowdon Major," as best Welsh Black Bull out of a Milk Recorded Cow.
Staffordshire Agricultural Society	Leek	Sept. 3 & 4	Silver...	H. A. Brown. Shorthorn Cow, "Grendon Cussy," as best Milk Recorded Dairy Cow.
"	"	"	Bronze	A. J. Bourne. Best exhibit of Butter.
Dorchester Agricultural Society	Dorchester	Sept. 4	Silver...	W. D. Chick. Devon Cow, "Compton Goody," as best Milk Recorded Dairy Cow.
Yeovil Agricultural Society	Yeovil	Sept. 10	Silver...	W. R. Withers. Cow, "Pretty Maid," as best Milk Recorded Shorthorn Cow or Heifer.

AWARDS DURING 1925.—Continued.

Applicant.	Show or Examination held at	Date.	Medal.	Winner and Object.
Nottinghamshire Agricultural Society	Wollaton ...	Sept. 16 & 17	Silver...	A. H. Lamin. Champion Buttermaker.
Cheshire Dairy Farmers' Association...	Chester ...	Oct. 6 & 7	Bronze	R. R. Cooper. Best exhibit of Cheshire Cheese in open classes.
Young Farmers' Clubs	Dairy Show, Islington	Oct. 20-23	Silver...	Miss E. Harriott. Highest score in Cow-Judging Contest.
"	"	"	Bronze	J. Harper. Second highest score in Cow-Judging Contest.
"	"	"	Bronze	E. Wise. Third highest score in Cow-Judging Contest.
Lancashire Cheese and Dairy Show ...	Preston ...	Oct. 27	Bronze	T. Butler. Best exhibit of Lancashire Cheese.
Somerset and North Dorset Milk Recording Association	Somerset and N. Dorset	Nov. ...	Silver...	R. N. Tory. Highest points in Dairy Herds Competition.
"	"	"	Bronze	Miss A. G. Guest. Second highest points in Dairy Herds Competition.
Gloucestershire Root, Fruit, and Grain Society	Gloucester ...	Nov. 9	Silver...	Miss E. B. Taylor. Best exhibit of Butter.
Cheshire Dairy Farmers' Association	Nantwich ...	Nov. 11 & 12	Bronze	G. Sutton. Best exhibit of Cheshire Cheese in open classes.

British Dairy Farmers' Association.

PRIZE ESSAY ON A DAIRYING SUBJECT.

The Council offers a Prize of £10 and the B. D. F. A. Silver Medal for an Essay upon any practical or scientific subject relating to Dairy Farming or Dairying, conditionally upon sufficient merit being shown.

Preference will be given to one based on the original work and experience of the writer. Where the work of others is relied upon, full references must be given, either in footnotes or by numbers (1), (2), &c., with a list of authorities at the end.

The Essay should not exceed 5,000 words, and must be received by the undersigned on 1st December, 1926.

An Essay must be sent in a sealed envelope, bearing a *nom de plume*, and in another sealed small envelope, also bearing the *nom de plume*, the Author must insert his name and address.

The Prize Essay will be the property of the Association. Others will be returned to their respective Authors, but the Association reserve the right to retain Essays on subjects suitable for inclusion in the Annual Journal, which will be paid for at the usual rate for literary contributions.

B. RAVENSCROFT,

Secretary,

28, Russell Square, London, W.C. 1.

THE
British Dairy Farmers' Association.

SUGGESTIONS TO FARMERS AS TO HOW BEST TO ENSURE
 THE
CLEANLINESS OF THE MILK SUPPLY.

The attainment of a clean milk supply is largely dependent upon the action of Dairy Farmers themselves.

Every Dairy Farmer is financially interested in this question. Public doubt of the cleanliness of the milk supply means reduced demand for fresh milk. Public confidence means increased use of milk as food and drink—consequently a larger demand.

Any Dairy Farmer by want of reasonable care can jeopardise the reputation of the whole industry and thus destroy the good work of those whose efforts are to increase the consumption of milk.

The co-operation of every producer is confidently requested.

The main points to be emphasized are :—

- (1) That consumers are entitled to receive milk which is clean and wholesome.
- (2) That the precautions necessary to produce clean wholesome milk are easy, simple and inexpensive.

Briefly these precautions are :—

To keep the milk sheds and cows as clean as possible.

To clean the udders and, before milking, wipe them with a clean damp cloth, rinsed after every cow.

To use a partly covered milking pail.

To see that milkers milk with clean hands.

To strain the milk through a strainer fitted with a new disc of cotton wool at each milking.

To empty water from cooler before washing.

To rinse utensils in cold water. Thoroughly wash in hot water and soda and scald in boiling water or, preferably, sterilise with steam or by boiling in water.

To stand utensils upside down to drain after cleaning and NOT to wipe them.

THIS ASSOCIATION APPEALS TO EVERY DAIRY FARMER TO PUT THESE PRECAUTIONS INTO OPERATION, BEING CONVINCED THAT IF PRODUCERS DO NOT TAKE MEANS TO ENSURE A CLEAN WHOLESOME MILK SUPPLY THE DEMAND FOR FRESH MILK WILL SERIOUSLY DIMINISH.

Correspondence on this subject will receive attention at the Offices of the Association, 28, Russell Square, London, W.C. 1.

British Dairy Farmers' Association.

EXAMINATION FOR THE B. D. F. A. DIPLOMA.

The Association grants to any Candidate who satisfactorily passes the necessary Examinations:—

A Diploma and Silver Medal for Proficiency in the Science and Practice of Dairying.

Candidates for the Diploma must have previously obtained the Butter and Cheesemaking Certificates of the Association,* and must produce satisfactory evidence that they have received not less than one year's scientific and practical instruction at some recognised centre for Dairying Instruction, and have spent at least twelve months on a Dairy Farm in addition to the time spent at the Centre.

The Examination will extend over three or more days, and will test the Candidates' knowledge and experience of the Principles and Practice of Dairying and Dairy Farming. The Candidates will also be required to satisfy the Examiners with regard to their skill in Butter and Cheesemaking.

Candidates will be required to answer, in writing, sets of questions within a given time, and will also be examined *viva voce*. They will be expected to possess a sound knowledge of all the subjects included in the following Syllabus. Candidates, if required, must produce their note-books of Lectures and Demonstrations attended.

The Practical Examination will include Buttermaking, and also the preparation of one Hard-pressed Cheese, either Cheddar, Cheshire or Derby, to be selected by the Examiner, and one Blue-veined Cheese, either Stilton or Wensleydale, to be selected by the Candidate.

The Diploma of the Association will be awarded to all Candidates who obtain not less than:—

- (a) 66 per cent of the total possible marks for the Theoretical Examinations, and not less than 60 per cent. in each and every written paper.
- (b) 75 per cent. in the Practical Examinations.

The Diploma with Honours will be awarded to Candidates satisfying the following conditions:—

- (1) The total marks obtained shall be not less than 75 per cent. of the possible marks for the whole Examination.
- (2) The Candidate shall obtain not less than 70 per cent. of the possible marks for each and every written paper.
- (3) The Candidate shall obtain not less than 80 per cent. of the possible marks in each Practical Examination (Cheese and Buttermaking).

EXEMPTION FROM THE PRACTICAL EXAMINATIONS.

Candidates will be considered to have satisfied the Examiners in either Cheese or Buttermaking, or both, if they have already obtained not less than 80 per cent. of the marks in the respective Practical Examinations for the Cheese and Buttermaking Certificates *granted by this Association*. Such Candidates will not be required to submit themselves to any further test in either Cheese or Buttermaking, or both as the case may be, but will be given credit for their practical skill.

Note.

Candidates excused the Practical Examination in Cheese and/or Buttermaking will have precisely the same opportunity of securing the Diploma or the Diploma with Honours as other Candidates who take both the Theoretical and Practical branches of the Examination at the same time.

* Equivalent Certificates of recognised Bodies will be accepted by the Association as evidence of sufficient training to justify entry for this Examination, but not for exemption from the Practical Tests in the Diploma Examination.

Examinations for the Diploma are held in the Autumn upon dates to be announced in the Agricultural and Dairy Press.

Entries will close 28 days prior to the date fixed for the commencement of the Examination.

The entry fee is 20s.

SYLLABUS.

1. DAIRYING.

- (a) **Milk.**—The Food Value of Milk; The Yield of Milk from various Breeds; Secretion of Milk and Structure of the Udder; Milking by Hand and Machine; Handling of Milk from Cow to Dairy; Importance of Cleanliness; Production of Highest Grade Milk; Cooling of Milk; Sale of Milk; Influence of Food on the Yield, Flavour, and Fat Contents of Milk; Composition of Milk, Nature and Properties of its Constituents; Differences between Morning and Evening Milk and their Causes; Methods of Sampling and Simple Methods of Testing Milk, as the Lactometer, Creamometer and Centrifugal Fat Testers; Testing for Acidity; Causes of Fermentation; Colostrum, its Nature and Properties; the Keeping of Dairy Records; the Handling of Evening's Milk for Cheesemaking; Properties of Milk suitable for Cheesemaking; Taints in Milk—their Causes, Effects and Remedies; Tests for such Taints; the Ripening of Milk for Cheesemaking; Methods and Reasons for Ripening; use of Natural and "Culture" Starters; Pasteurisation of Milk; Chilled Milk: their Subsequent Use for Cheesemaking; Special Testing of Milk, Whey, and Curd requisite in a Cheese Dairy; Utilisation of Dairy By-products.
- (b) **Cream.**—The Various Methods of obtaining Cream; the Construction and Use of the Utensils Employed; Separators, the Construction and Use of the various Types; Composition of Cream, Separated Milk, Skimmed Milk and Butter-milk, with Simple Tests for Fat in same; the Ripening of Cream, Objects and Results; Changes during Ripening; Testing for Acidity; Natural and Artificial Ripening and Preparation of Starters; the Preparation of Cream for Churning; Preparation of Cream for Sale; Clotted Cream.
- (c) **Butter.**—The Various Methods of obtaining Butter, including the Churning of Whole Milk; Utensils required and the Preparation, Use and Care of same; the Process of Butter Manufacture in all its Details; Conditions which affect the Butter Yield; Circumstances affecting the Flavour, Texture, Colour and Keeping Properties of Butter; Dry-salting and Curing of Butter; Faults in Butter and their Causes; Composition and Properties of Good Butter; Composition and Causes of Inferior Butter; Methods of Judging Butter. Candidates will be required to satisfy the Examiners with regard to their practical skill in buttermaking.
- (d) **Cheese.**—Rennet: its Preparation, Properties, and Action upon Milk; Testing its Strength; Storage of Rennet; Substitutes for Rennet; Annatto; a General Knowledge of the Manufacture of the Principal Varieties of Hard-pressed, Blue-veined, and Soft Cheeses, including the use of Wood and Metal Tubs and Jacketed Vats; Methods of Scalding; the Development and Control of Acidity in Curd; Salting and Brining in Cheesemaking; Bandaging; Ripening and Storing of Hard-pressed, Blue-veined and Soft Cheeses; Defects in Cheese and their Causes; Composition of Cheese; Composition and Utilisation of Whey; the Manufacture of Whey Butter; the Equipment of a Cheese Dairy and its Cost; the Care of Utensils

Candidates will be required to make one Hard-pressed Cheese, either Cheddar, Cheshire, or Derby, to be selected by the Examiner, and one Blue-veined Cheese, either Stilton or Wensleydale, to be selected by the Candidate. They must also have a knowledge of the manufacture of other varieties of Hard-pressed Cheese, and of Soft Cheese.

2. DAIRY FARMING.

(a) A General Knowledge of Dairy Farm Management, including the Cultivation of Farm Crops, with a Special Knowledge of those employed in the Feeding of Dairy Stock.

(b) Foods and Feeding.—The Effects of various Foods on Milk and Dairy Products; Systems of Feeding and the Compilation of Rations.

(c) Live Stock.—Characteristics and Management of Different Breeds of Cattle; their Breeding and Rearing; Choice of Dairy Cattle for Special Purposes and Situations; Identification and Treatment of Common Ailments of Dairy Stock; Pigs and Poultry; Suitable Breeds for Use in Connection with a Dairy Farm and their Management.

(d) Buildings suitable for a Dairy Farm: their Situation, Construction, Ventilation, Drainage, &c.; Water Supply.

(e) Milk Records; Business Methods involved in Dairying; Book-keeping on a Dairy Farm.

(f) Improvement in Equipment and Methods on Dairy Farms; the Use of Score Cards.

3. CHEMISTRY.

(a) General.—The Chemical Elements and Constituents found in Milk, Soils, Plants, Manures, Animals, and Foods; their Nature and Properties so far as they relate to Agriculture; the simpler Laws of Chemical Combination and Change so far as regards these Substances.

(b) Dairy.—The Composition and Properties of Milk, Cream, Butter, Cheese, and Dairy Products, and of all Substances used in the Dairy; Simple Methods of Analysis as applied to these Substances; the Chemical Changes which may take place in Milk, Cream, Butter, &c.; Water Supply.

4. BACTERIOLOGY.

(a) General.—Bacteria, their Form, Classification, Growth and Reproduction; The Microscope and its Use; Staining and Microscopic Examination of Bacteria; Methods of Isolation and Cultivation; Preparation of Culture Media; Fermentations and Chemical Changes produced by Bacteria; Enzymes and their Action; Effects of Heat, Cold, Sterilisation, Pasteurisation, Disinfectants, and Preservatives on Bacteria and Enzymes.

(b) Dairy Bacteriology.—The Bacteria of Milk and Dairy Products; Examination of Milk for Foreign Bodies, Sediment, Blood, Pus, and Pathogenic Organisms; the Bacteriology of Milk, Cream, Butter, and Cheese; Commercial Bacterial Preparations for use in the Dairy; Bacteria Injurious to Dairy Produce: their Source, Nature, and Treatment; Bacterial and other Standards in relation to the Cleanliness of Milk.

(c) Fungi (Moulds) and Yeasts.—Their Forms, Classification, and Growth; their Relation to Dairy Produce.

5. INSTRUCTION.

Capacity to impart Instruction.—Organisation of Dairy Courses suitable to different Districts.

EXAMINATION FOR CHEESEMAKING CERTIFICATE.

The Association grants to any Candidate who satisfactorily passes the necessary Examination—

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking.

The Examination, which will extend over two or more days, will test the Theoretical Knowledge of the Candidates and their Practical Skill in Cheesemaking. Each Competitor will be required to answer, in writing, a set of questions within a given time, and will also be examined *viva voce*. On the same or following day a Practical Examination in Cheesemaking will take place.

Candidates will be considered to have passed the Examination if they obtain not less than 60 per cent. of the marks on each and every written paper and not less than 66 per cent. in the Practical test.

Candidates passing the Examination and obtaining 80 per cent. and over of the possible marks in the Practical Test will be excused the Practical Examination in Cheesemaking at the Diploma Examination. Notification of this exemption will be made by letter, as no endorsement to this effect is permitted on the Cheesemaking Certificate.

Candidates for this Certificate must, at the time of entry, produce satisfactory evidence that they have received at least twelve months' instruction in the Theory and Practice of Cheesemaking, of which at least six months must have been spent at a recognised centre for dairy instruction. They must possess a sound knowledge of the subjects included in the following Syllabus.

Candidates will be required to make one Hard-pressed Cheese, either Cheddar, Cheshire or Derby, to be selected by the Examiner, and one Blue-veined Cheese, either Stilton or Wensleydale, to be selected by the Candidate. They must also have a knowledge of the manufacture of other varieties of Hard-pressed Cheese and of Soft Cheese.

Candidates are at liberty to bring their own utensils for the Practical Examination if they wish to do so.

Examinations for Cheesemaking Certificates are held twice a year, viz., in the Spring and Autumn, upon dates announced in the Agricultural and Dairy Press

Entries will close 28 days prior to the date fixed for the Examination.

The Entry Fee is 10s.

SYLLABUS.

1. Milk.—The Food Value of Milk; The Yield of Milk from various Breeds; Secretion of Milk and Structure of the Udder; Milking by Hand and Machine; Handling of Milk from Cow to Dairy; Importance of Cleanliness; Production of Highest Grade Milk; Cooling of Milk; Sale of Milk; Influence of Food on the Yield, Flavour and Fat Contents of Milk; Composition of Milk, Nature and Properties of its Constituents; Differences between Morning and Evening Milk and their Causes; Methods of

Sampling and Simple Methods of Testing Milk, as the Lactometer, Creamometer, and Centrifugal Fat Testers; Testing for Acidity; Causes of Fermentation; Colostrum, its nature and properties; the Keeping of Dairy Records; the Handling of Evening's Milk for Cheesemaking; Properties of Milk suitable for Cheesemaking; Taints in Milk, their Causes, Effects and Remedies; Tests for such Taints; the Ripening of Milk for Cheesemaking; Methods and Reasons for Ripening; use of Natural and "Culture" Starters; Pasteurisation of Milk; Chilled Milk; their Subsequent use for Cheesemaking; Special Testing of Milk, Whey, and Curd requisite in a Cheese Dairy; Utilisation of Dairy By-products.

2. Cheese.—Rennet: its Preparation, Properties, and Action upon Milk; Testing its Strength; Storage of Rennet; Substitutes for Rennet; Annatto; a General Knowledge of the Manufacture of the Principal Varieties of Hard-pressed, Blue-veined, and Soft Cheeses, including the use of wood and metal tubs and jacketed vats; Methods of Scalding; the Development and Control of Acidity in Curd; Salting and Brining in Cheesemaking; Bandaging; Ripening and Storing of Hard-pressed, Blue-veined and Soft Cheeses; Defects in Cheese and their causes; Composition of Cheese; Composition and Utilisation of Whey; the Manufacture of Whey Butter; the Equipment of a Cheese Dairy and its Cost; the care of Utensils; the Detailed Principles and Practice requisite for the Manufacture of one of the following types of Cheese:—

(a) A Hard-pressed British Cheese (not less than 25 lbs. weight).

(b) A Blue-veined British Cheese (not less than 10 lbs. weight).

EXAMINATION FOR BUTTERMAKING CERTIFICATE.

The Association grants to any Candidate who satisfactorily passes the necessary Examination—

A Certificate of Merit for Proficiency in the Theory and Practice of Butter-making.

The Examination, which will extend over two or more days, will test the Theoretical Knowledge of the Candidates and their Practical Skill in Buttermaking. Each Competitor will be required to answer, in writing, a set of questions within a given time, and will also be examined *viva voce*. On the same or following day a Practical Examination in Buttermaking will take place.

Candidates will be considered to have passed the Examination if they obtain not less than 60 per cent. on each and every written paper, and not less than 66 per cent. in the Practical Test.

Candidates passing the Examination and obtaining 80 per cent. and over of the possible marks in the Practical Test will be excused the Practical Examination in Buttermaking at the Diploma Examination. Notification of this exemption will be made by letter, as no endorsement to this effect is permitted on the Buttermaking Certificate.

Candidates for this Certificate must, at the time of entry, produce satisfactory evidence that they have received at least three months' instruction (not necessarily at a Dairy School) in the Theory and Practice of Buttermaking. They must possess a sound knowledge of the subjects included in the following Syllabus. They will be required to make Butter.

Candidates are at liberty to bring their own utensils for the Practical Examination if they wish to do so.

Examinations for Buttermaking Certificates are held twice a year, viz., in the Spring and Autumn, upon dates announced in the Agricultural and Dairy Press.

Entries will close 28 days prior to the date fixed for the Examination.

The Entry Fee is 5s.

SYLLABUS.

1. Milk.—The Food Value of Milk; the Yield of Milk from various Breeds; Secretion of Milk and Structure of the Udder; Milking by Hand and Machine; Handling of Milk from cow to dairy; Importance of Cleanliness; Production of Highest Grade Milk; Cooling of Milk; Sale of Milk; Influence of Foods on the Yield, Flavour and Fat Contents of Milk; Composition of Milk, Nature and Properties of its constituents; Differences between Morning and Evening Milk and their causes; Methods of Sampling and Simple Methods of Testing Milk, as the Lactometer, Creamometer, and Centrifugal Fat Testers; Testing for Acidity; Causes of Fermentation; Colostrum, its nature and properties; the Keeping of Dairy Records.
2. Cream.—The Various Methods of Obtaining Cream; the Construction and Use of the Utensils employed; Separators, the Construction and Use of the various Types; Composition of Cream, Separated Milk, Skimmed Milk, and Butter-milk, with Simple Tests for Fat in same; the Ripening of Cream—Objects and Results; Changes during Ripening; Testing for Acidity; Natural and Artificial Ripening and Preparation of Starters; the Preparation of Cream for Churning; Preparation of Cream for Sale; Clotted Cream.
3. Butter.—The Various Methods of Obtaining Butter, including the Churning of Whole Milk; Utensils required, and the Preparation, Use, and Care of same; the Process of Butter Manufacture in all its details; Conditions which affect the Butter Yield; Circumstances affecting the Flavour, Texture, Colour, and Keeping Properties of Butter; Dry-salting and Curing of Butter; Faults in Butter and their causes; Composition and Properties of Good Butter; Composition and Causes of Inferior Butter; Methods of Judging Butter.

EXAMINATION FOR FACTORY MANAGER'S DIPLOMA.

Regulations and Syllabus, viz. :—

Candidates must hold the British Dairy Farmers' Association's Diploma or the National Dairy Diploma.

They must have subsequently spent at least six summer months in a Factory dealing with not less than 500 gallons of milk daily.

Candidates will write answers to a paper and be examined orally and practically on the following :—

1. Factory : the Site, Construction, and Requirements of a Factory.
2. Lighting and Power in the Factory.
3. Boilers, Engines, Shafting, Fittings, and Apparatus, their disposition and control.
4. Maintenance and Cleansing of Factory and disposal of Waste.
5. Organisation of Labour and use of Labour-saving Devices.
6. Milk, management of, on arriving at Factory : Weighing, Sampling, Testing, Recording, Cleaning, &c.
7. Methods of dealing with the Milk for (a) Sale ; (b) Cream Production ; (c) Buttermaking ; (d) Cheesemaking ; (e) Other Products.
8. Refrigerating Machinery and its use.
9. Cold Stores and their Management.
10. Pasteurising and Sterilising Machinery and its use.
11. Cream, preparation of, for Market.
12. Butter : Manufacture and Treatment.
13. Cheese : Manufacture and Treatment.
14. Utilisation of Bye-products.
15. Pig-keeping.
16. Business Management ; Book-keeping ; Stocktaking and Depreciation ; Contracts ; Railway Rates and Conditions ; Statements ; Notices, &c.
17. Law, so far as it affects the Factory, the Management, and the Produce, including main provisions of Factory and Workshop Act ; Workmen's Compensation ; Health Insurance ; Employers' Liability ; Rivers Pollution Act ; Industrial and Provident Societies Act ; Sale of Food and Drugs Act ; Milk and Dairies Acts, and other Legislation as it affects the Working of Factories and the Manufacture and Sale of Dairy Produce.

The Entry Fee for each Candidate is fixed at £4 4s.

Particulars and Entry Forms for all Examinations may be obtained from

THE SECRETARY,
BRITISH DAIRY FARMERS' ASSOCIATION,
28, Russell Square, London, W.C. 1.

EXAMINATIONS

AT

LOCAL CENTRES.

In order to meet the convenience of Students at Dairy Schools, members of local Societies, and other persons, the Association will conduct Examinations for its Diplomas and Certificates at any place in the United Kingdom upon receiving satisfactory proof that the following conditions will be observed :—

That the School, Society, County Council, or other body requesting such an Examination to be held, undertake :—

- (1) To supply all necessary appliances and materials.
 - (2) To pay the fees and expenses of the Examiners.
 - (3) To supply the milk required free from preservatives and fit for Cheesemaking.
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Copies of Question Papers set at recent Examinations may be obtained at 3d. per copy.

Applicants are requested to state whether Diploma, Cheese, or Butter Questions are required.

Further particulars and Entry Forms for Students may be obtained from

The SECRETARY,

BRITISH DAIRY FARMERS' ASSOCIATION,

28, Russell Square, London, W.C. 1.

COMBINED DAIRY (EDUCATION) COMMITTEE.

Memorandum *re* Diploma and Certificate Courses in Dairying.

It is proposed to bring the following Diploma Syllabuses into force in October, 1925, so that the first Examination on these Syllabuses will take place in 1927. Amended regulations will be issued in due course.

On the invitation of the Council of the British Dairy Farmers' Association a meeting was held at the Agricultural Hall on Friday, 21st October, 1921, to consider what steps might be taken to improve the training and standard of examinations for Certificates and Diplomas in Dairying.

On the motion of Lord Bledisloe, seconded by Mr. Burkitt, the following resolution was passed :—

“That a Committee be forthwith constituted to consider in what directions, if any, the conditions now regulating the training and examinations for the various Certificates and Diplomas require amendment.”

It was suggested that the Committee might consist of representatives of the Royal Agricultural Society, the Highland and Agricultural Society, the British Dairy Farmers' Association and certain educational institutions, with power to add to its number.

The Committee was primarily constituted as follows :—

Ernest Mathews, Esq., C.V.O., L.L.D., representing The Royal Agricultural Society of England.

Chas. Douglas, Esq., C.B., D.Sc., representing The Highland and Agricultural Society.

J. Benson, Esq., representing The British Dairy Farmers' Association.

Prof. H. A. D. Neville, M.A., representing The University College, Reading.

Wm. Goodwin, Esq., Ph.D., representing The Midland Agricultural and Dairy College.

S. H. Gater, Esq., M.A., representing The Lancashire County Council Dairy School.

Prof. W. G. R. Paterson, B.Sc., representing The West of Scotland Agricultural College.

Prof. A. E. Jones, B.Sc., representing the University College of Wales.

Prof. R. G. White, B.Sc., representing the University College of North Wales.

Principal D. R. Edwardes-Ker, O.B.E., M.A., representing The Seale Hayne Agricultural College.

Alexander Hay, Esq., N.D.A., N.D.D., representing The East Anglian Institute of Agriculture.

The following members were also appointed to serve on the Committee :—

Prof. R. Stenhouse Williams, M.B., B.Sc.,	National Institute for Research in Dairying.
J. Mackintosh, Esq., O.B.E.,	
Alec Todd, Esq., representing The Agricultural Education Association.	

Dr. Goodwin has since resigned from the Committee and has been succeeded by Dr. Milburn, while Mr. J. J. Green, B.Sc., Secretary for Agriculture to the Lancashire County Council, has acted on behalf of Mr. Gater.

The first meeting of the Committee was held in the Council Rooms of the British Dairy Farmers' Association on the 27th April, 1922, and after a brief discussion on courses in Dairying at present in existence, it was decided to make a complete review of Dairy Courses and Dairy Examinations in existence at the present time, which has involved twelve meetings of the Committee and Sub-Committees, and as a result of this detailed survey, the following recommendations are put forward by the Committee for Diploma Courses in Dairying and Certificate Courses in Dairy Factory Management.

DIPLOMA IN DAIRYING.

The Committee recommend that for a Dairy Diploma Examination five foundation papers are necessary, and the papers suggested are :—

1. Dairy Farming and Dairy Hygiene.
 - (a) Dairy Farming.
 - (b) Dairy Hygiene.
2. Dairying.
 - (a) Principles of Dairying.
 - (b) Dairy Factory Management and Dairy Engineering.
3. Dairy Chemistry.
 - (a) General Chemistry and Physics.
 - (b) Dairy Chemistry.
4. Dairy Bacteriology.
5. Dairy Book-keeping.

In addition, all candidates will be required to demonstrate their practical skill.

DURATION OF COURSE.

They further recommend that the duration of a Diploma Course in Dairying be two academic years, this period to include six months' practical instruction in Dairying.

PRACTICAL FARM WORK.

They also recommend that a candidate for a Diploma in Dairying produce evidence that he or she has spent at least six months on a recognised Dairy Farm, and that he or she has taken part in the work of the farm; such practical work to be in addition to the two years of study outlined in the above recommendation.

TYPE OF COURSE SUGGESTED.

For a Diploma Examination on the lines suggested the Committee recommend a course of instruction on the following lines:—

PAPER 1. DAIRY FARMING AND DAIRY HYGIENE.

A. Dairy Farming.				Approximate number of hours.	
				Lectures.	Practical Work.
(1) Dairy Cattle and Milk Production	...	...	...	60	—
(2) Management of Pigs	...	...	...	10	—
(3) Soils and Cultivation	...	...	...	20	—
(4) Plant Physiology	...	...	...	20	—
(5) Crop Management	...	...	...	40	—
(6) Farm Management	...	...	...	10	—
(7) Dairy Economics	...	...	...	10	—
				170	—

B. Dairy Hygiene.

(1) Animal Physiology	50	—
(2) Veterinary Hygiene	...	...	...
(3) Milk Hygiene	...	...	...

PAPER 2. DAIRYING.

A. Principles of Dairying				60 and at least six months' practical instruction at a recognised Dairy Centre.
B. (1) Factory Practice and Management				20 —
(2) Dairy Engineering				20 —

PAPER 3. DAIRY CHEMISTRY.

A. General Chemistry and Physics	...	75	100
B. Dairy Chemistry (including Animal Nutrition)	...	60	80

PAPER 4. DAIRY BACTERIOLOGY

...	...	60	100
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PAPER 5. DAIRY BOOK-KEEPING

...	...	60 hrs. instruction.
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SYLLABUS OF SUBJECTS OF EXAMINATION.

The Committee recommend the following Syllabus of Examination as one which covers the instruction necessary for a Diploma Course on the lines suggested in the above recommendation :—

1. DAIRY FARMING AND DAIRY HYGIENE.

(a) DAIRY FARMING.

Dairy Cattle.—Characteristics of different breeds and choice of dairy cattle. The milk yields of the more important breeds, and suitability for the milk trade, cream, butter and cheese production.

Foods and Feeding.—Summer and winter feeding of dairy cattle. Root and fodder crops. Green forage. Ensilage. Different kinds of food and their relative composition. The effect of food upon milk, butter and cheese. Special foods used for dairy stock. Preparation of food for dairy stock. Feeding of calves and young stock.

Housing and Management.—The situation, chief dimensions and construction of cow houses; ventilation, drainage, water supply. Systems of herd management, including management of herd bulls and in-calf heifers. Cattle breeding and grading up of dairy stock. Systems of calf rearing. The housing and management of young stock.

Milk Recording.—Systems and utilisation of results. Details of official schemes.

Milk Production.—Factors influencing the yield and quantity of milk. Milking by hand and machine. Location and equipment of farm dairies. The production and sale of clean milk. The treatment of milk from the cow to the milk factory or consumer.

Management of Pigs.—Characteristics of the more important breeds. Feeding of pigs. The management of sows and breeding stock. Farrowing, weaning, rearing and fattening of pigs. Systems of pig keeping, including outdoor management. The production of pork and bacon.

Soil and Cultivation.—Types of soils suitable for dairying. Fertility in soils. Soil cultivation. Manures and manuring of arable and grass land.

Plant Physiology.—Fruits and seeds of agricultural plants. Roots and shoots. Flower construction and seed formation. Experiments to demonstrate the fundamental facts of plant physiology.

Crop Management.—Rotations and systems of cropping. Cultivation, manuring and management of roots, forage and other crops used in dairying. Silage crops. Temporary and permanent pasture. Haymaking.

Farm Management.—Systems of dairy farming. The selection, stocking and equipment of typical farms. The organisation of the farm and disposal of produce. Cost of milk production.

Dairy Economics.—The dairy industry of Great Britain and its relationship to agriculture. The relative importance of the various products. The retail milk trade. Markets. Dairy organisation and co-operation. Modern developments in the dairy industry. American, Colonial and Continental dairying.

(b) DAIRY HYGIENE.

Animal Physiology.—General functions of the organs of the animal body. Breeding. Parturition. The structure of the udder and the process of milk secretion. Changes which food undergoes during digestion.

Veterinary Hygiene.—The more important diseases of dairy cattle and their remedies. The transmission and eradication of disease.

Milk Hygiene.—Sanitary conditions. Air space and ventilation. Suitability of water supply, temperature, &c. Methods of milking and handling of milk. Transportation. Prevention of contamination. Pasteurisation. Sterilisation. Legislation affecting milk production. Milk in relation to public health.

2. DAIRYING.

(a) PRINCIPLES OF DAIRYING.

Milk.—Condition on delivery. Use of utensils and appliances. Cooling of milk. Importance of cleanliness. Keeping of milk. Legal standards. Methods of utilisation of milk and their comparative returns.

Milk Testing and Sampling.—The use of the Gerber and Babcock fat testers. Lactometer readings. Scale readings. Sample of milk for testing. Interpretation of results.

Cream.—Separators and their management. Different systems of cream raising and ripening of cream. Changes during ripening. Natural and artificial ripening and preparation and uses of starters. Preparation of cream for sale. Use of preservatives. Clotted cream.

Butter.—Churns and buttermaking appliances. Preparation of cream for churning. Washing and working butter. Butter milk. Packing and transmission of butter. Selection and keeping of butter. Salting. Use of preservatives. Characteristics of good butter and method of judging. Circumstances affecting the flavour, texture, colour and keeping qualities of butter. Potting butter for keeping. Causes of inferior butter.

Cheese.—Principles of manufacture. Appliances for cheesemaking. The making of the principal varieties of British, Colonial and Continental cheese from cream, whole milk and skim milk. Acidity of milk. Common tests for acidity. Use of rennet and its substitutes. Whey. Ripening and storage of cheese. Packing and sale of cheese. Making of cream and other soft cheese. Defects in cheese and their causes. Judging cheese.

Dairy By-Products.—Composition, uses and value of skim milk, butter-milk and whey.

(b) DAIRY FACTORY MANAGEMENT AND DAIRY ENGINEERING.

Factory Practice.—Milk depôts and handling of factory milk. Systems of cooling and refrigeration. Pasteurisation. Factory butter and cheese making. Milk Powders. Condensed milk. Frozen milk. Ice cream. Dried casein. Fermented milk. Lactose and whey-butter. Margarine manufacture. Equipment of milk depôts, butter, cheese and dairy factories.

Factory Management.—Factory routine. Organisation of labour. Handling of milk on arrival at the factory. Methods of dealing with the milk. Milk contracts. Dairy factory legislation.

Production of Power.—The various forms of energy as used for the production of power.

Machinery.—Care and management of engines and boilers. Power transmission. Construction and use of dairy factory machinery. Refrigerating machinery.

Dairy Appliances.—Appliances used in the production and handling of milk, butter, and cheese making. Milk testing apparatus.

Buildings.—Situation, construction and drainage of creameries, milk depôts and dairy factories.

3. DAIRY CHEMISTRY.

(a) GENERAL CHEMISTRY AND PHYSICS.

General Principles of Chemistry.—The nature of elements and compound bodies. The different forms of matter, solid, liquid, gaseous. Specific gravity and instruments for determining it. Specific heat. Temperature and methods of measuring it. Thermometric scales. The influence of temperature in dairy operations. Physical and chemical changes involved in the following: Solution, precipitation, filtration, distillation, oxidation and reduction. Acids: Bases; Salts: their distinctive properties and quantitative estimation. Examination and identification of specimens and apparatus.

The Atmosphere.—Its constituents and impurities ; its influence on dairy operations. Atmospheric pressure.

Water.—Constituents of pure and natural waters. The impurities of water and whence derived. The importance of a pure water supply in dairying.

Inorganic and Organic Chemistry.—General knowledge of the elementary chemistry of the following substances and their compounds so far as met with in dairying : Potash, soda, ammonia, lime, phosphoric acid, alcohol, acetic acid, carbonic acid, butyric acid, lactic acid albumen, casein, fats, milk-sugar, glycerine, pepsin, saponification of fats.

(b) DAIRY CHEMISTRY.

Chemistry of Milk.—The nature, composition, properties and chemical constituents of milk. Microscopical appearances presented by milk. The influence of feeding. The changes which occur in the keeping of milk, and how produced. The natural and artificial souring of milk. Rennet, its nature and use.

Milk Products.—Physical and chemical changes involved in the making and keeping of butter and in the manufacture and ripening of cheese. Separated milk. Condensed milk. Fermented milk. Synthetic milk. The use of preservatives.

Dairy Analysis.—Analytical methods, their theory and practices. A general knowledge of the methods employed in the chemical analysis of milk, butter and cheese. Adulteration of milk, cream, butter and cheese, the ways in which adulteration is practised, the changes in composition thereby produced, and a general knowledge of the methods employed in detecting the same.

Chemistry of Feeding.—The principal constituents of food materials and the functions they severally fulfil. The influence of food constituents on milk production. Assimilation and digestion. The manurial value of foods. Milk and milk products as foods.

4. DAIRY BACTERIOLOGY.

General Bacteriology.—Bacteria ; their form, classification, growth and reproduction. The microscope and its use. Staining and microscopic examination of bacteria. Methods of isolation and cultivation. Preparation of culture media. Fermentations and chemical changes produced by bacteria. Enzymes and their action. Effects of heat, cold, sterilisation, pasteurisation, disinfectants and preservatives on bacteria and enzymes. Bacteriological examination of water supplies.

Bacteriology of Milk.—The changes produced by bacteria in milk. Useful forms and their functions. Harmful forms and their effects. Coagulation, discolouration, taints, &c. Bacteriological and other standards in relation to the cleanliness of milk.

Milk Products.—The bacteria concerned in the ripening of cream and butter making. “Starters”: their preparation and management. The ripening of hard, soft and blue-veined cheese. Bacteria injurious to milk products, including condensed and dried milk.

Dairy Mycology.—Moulds and yeasts in dairy practice. Their form, classification, growth and relation to dairy products.

5. BOOK-KEEPING.

General Principles.—Principles of double entry book-keeping. Use of diary, journal, cash book and ledger. Posting to ledger. Preparation of profit and loss account and balance sheet. Systems of valuation.

Farm Book-keeping.—Application of the principles of book-keeping to dairy farming and to the sale of milk in bulk or by retail. Milk ledgers and customers’ accounts.

Factory Accounts.—Methods of book-keeping as applied to milk depôts and dairy factories.

Business Management.—General office work. Banking and use of cheques.

CERTIFICATE IN DAIRY FACTORY MANAGEMENT.

The Committee recommend that the most desirable course for Factory Managers is as follows :—

1. The possession of an approved Dairy Diploma.
2. Six months’ practical instruction at an approved dairy factory.
3. Possession of a Certificate obtained by examination.

EXAMINATION IN FACTORY MANAGEMENT.

The Committee make the following recommendations with regard to an Examination in Dairy Factory Management.

1. That a candidate be examined in two papers as outlined in the Syllabus submitted.
2. That the said candidate be examined orally in Factory Management with reference to the type of factory in which the practical training has been obtained.
3. That the said candidate submit full notes of the work which has been carried out in the factory in which the practical experience has been obtained, and such notes to be submitted to the examiners for inspection.

SYLLABUS OF EXAMINATION.

The following Syllabus of Examination is recommended for those students who have obtained a Diploma in Dairying and wish to take the Factory Managers' Certificate. The Committee are of opinion that this Syllabus should not be viewed from a purely engineering standpoint, but students will be expected to have a general knowledge of the management of factory machinery :—

PAPER 1. PLANNING, EQUIPMENT AND MANAGEMENT OF A DAIRY FACTORY.

Dairy Factories.—Site, building materials, construction, laying of floors, lighting, ventilation, drainage, sanitation, disposal and treatment of sewage and factory waste. Space requirements for the common types and sizes of factories.

Water Supply.—Water requirements ; sources of supply. Examination for quality and purity. Methods of purification. Suitability of water supplies for dairy purposes. Sites for wells. Construction of wells. Artesian wells. Pumps for deep and shallow wells. Air lift pumps.

Factory Equipment.—Artificial lighting and sources of power in the factory. Equipment required for various types of factories and approximate cost of same. The disposition and control of factory machinery.

Steam Plant.—Types of vertical and horizontal boilers and their relative advantages and disadvantages. Sizes of boilers required in dairy factories. Evaporating power of boilers. Setting and insulation. Cleaning out of boilers. Economical firing. Fuel used, *e.g.*, coal, coke and wood. Cost and calorific value. Fuel consumption and cost of steam production. Allocation of steam supply to different purposes in the factory. Boiler smoke stacks and their construction. Boiler fittings, including donkey pumps and water injectors. Feed heaters. Methods of economising steam supply.

Factory Machinery.—Steam, gas and oil engines. Electric motors, turbines, water power, comparison of the various types and their relative efficiency. Construction and working of the various types. Cost of maintenance. Power requirements of the factory and the most suitable combinations of power when different sources of energy are available. The management and fitting up of machinery, including electric fittings. Adjustment of bearings. Packing of glands. Fixing of brackets, &c. Lubrication of machinery. Oil containers and filters. Lubricants. Lubrication of high speed machinery. Oils and grease for shafting. Arrangement of machinery and methods of transmitting power. Belts, types and uses. Repairs to belting. Pulleys and gearing. Methods of increasing and reducing speed. Labour-saving devices. Tools required for a dairy factory.

Factory Plants.—Construction and operation of milk apparatus, including clarifiers, pasteurisers, separators, milk pumps, refrigerators, &c. Refrigerating machinery. CO and ammonia. Methods of operation and management. Cold storage and brine cooling. Efficiency in the transfer of heat in heating and cooling apparatus. Methods of carrying out efficiency tests under different conditions and outputs. Factory appliances, including cheese vats, holding vats, power churns, bottling machinery and other factory equipment. Their approximate cost and suitability of the various types. Methods of cleaning equipment, utensils and milk churns.

Factory Management.—Organisation of labour. Business management. Book-keeping. Cost accounts. Profit and loss in manufacturing. Stock-taking and depreciation. Railway rates and conditions. Road transport. Systems and comparative costs. Advertising. Markets and sale of produce. Co-operative organisation.

Factory Law.—Law as far as it affects the factory, the management and the produce. Factory and Workshops Act. Workmen's Compensation. Health Insurance. Employer's Liability and Trade Boards Acts. Industrial and Provident Societies Act. Rivers Pollution Act. Sale of Foods and Drugs Act. Milk and Dairies Acts, and other legislation as it affects the working of factories and the manufacture and sale of dairy produce.

PAPER 2. HANDLING AND UTILISATION OF MILK AND MILK PRODUCTS.

Handling of Milk.—Purchase, collection and distribution of milk. Management of milk on arrival at the factory. Weighing, sampling, testing, recording and cleaning. Methods of paying for milk and cream.

Utilisation of Milk.—Methods of dealing with milk for sale for cream production, butter-making, cheese-making and for the manufacture of other products.

Factory Products.—Preparation of cream for market. The manufacture and treatment of butter and cheese. Manufacture of condensed and powdered milk, casein and milk sugar, &c. Ice cream manufacture, &c. The utilisation of by-products.

Pig Keeping.—Feeding and management of pigs. The production of pork and bacon. Bacon curing.

In the opinion of the Committee the Syllabus and the training conditions proposed above indicate the general principles on which the awarding of Diplomas should be based. The Committee do not desire to insist on all the arrangements in detail, but they believe that the subjects mentioned ought to be included in every examination for a Diploma, and the amount of practical training required ought to be regarded as a minimum by all examining Bodies. The Committee

think that it is of great importance that a high standard should be maintained in the more elementary and preparatory scientific examinations.

The Committee desire to place on record their appreciation of the excellent work done by Mr. Alexander Hay, who has acted as their Honorary Secretary. His unfailing courtesy and ready resource in discussing the various questions that have come before them rendered their task comparatively easy.

(Signed) ERNEST MATHEWS, *Chairman.*

CHARLES DOUGLAS.

A. E. JONES.

JOHN BENSON.

R. G. WHITE.

H. A. D. NEVILLE.

D. R. EDWARDS KER.

THOS. MILBURN.

R. STENHOUSE WILLIAMS.

J. J. GREEN.

JAMES MACKINTOSH.

WILLIAM G. R. PATERSON. ALEC TODD.

ALEXANDER HAY, *Hon. Secretary.*

31st July, 1923.

EXAMINATION RESULTS, 1925.

EXAMINATION FOR BUTTERMILKING AND CHEESEMAKING CERTIFICATES AT THE SOMERSET FARM INSTITUTE, CANNINGTON; ON MONDAY, TUESDAY, AND WEDNESDAY, MARCH 30TH, 31ST AND APRIL 1ST.

- A Certificate of Merit for Proficiency in the Theory and Practice of Buttermilking to Mavys M. Arnold, Ellen G. Butler, Dorothy Derrick, Annie Elliott, Dorothy D. Field, Gladys Heal, Ada F. Millard, Emily R. Mitchell, Dorothy A. Reed, Kathleen J. Small, Maud Smith and Florence M. Wyatt.
- A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking to Dorothy D. Field, Gladys Heal, Edith M. Marsh, Maud Smith and Florence M. Wyatt.

EXAMINATION FOR BUTTERMILKING AND CHEESEMAKING CERTIFICATES AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY, WEDNESDAY, AND THURSDAY, JUNE 22ND, 23RD, 24TH AND 25TH.

- A Certificate of Merit for Proficiency in the Theory and Practice of Buttermilking to Nancy L. Baker, Edith M. Barnard, Charles D. Berry, Frank Brown, Linda M. Cookman, E. Crowther Davies, Marian Davies, Gladys Dawson, Eva F. Denny, Henry L. Forbes, Brian G. T. Forsyth, Violet Foulkes, Helen G. Goodman, Mary J. Harris, Roger J. Hillsdon, Kathleen M. Holmes, Doris A. Hunt, Leslie R. Huntley, Beatrice M. Hes, Sybil Kendrick-Lloyd, Phyllis E. Kent, Kenneth J. Kilford, Jessie C. Laidlaw, Margaret Miller, John Milne, Geoffrey W. Minney, Blodwen K. Owen, Edward J. Powell, Henrietta Roberts, John R. Rowling, Mary L. Rugg, Christopher R. Rushton, Barbara C. R. Russell-Smith, Rupert B. Shorter, Leonard A. Smith, Viola C. Stamper, Maurice E. Swabe, Raymond Tamblin, Clara L. Taylor, Mary E. Todd, Susan M. Osborne, Arthur Wells, Edward B. West, Edith M. L. Wood and Elizabeth A. Yardley.

- A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking to Charles C. Berry, Violet Blow, Marion Cautley, Linda M. Cookman, Marian Davies, Eva F. Denny, Mary E. Fairfax-Cholmeley, Henry L. Forbes, Brian G. T. Forsyth, Violet Foulkes, Norman A. Gue, Isabel M. Hudson, Beatrice M. Hes, Sybil Kendrick-Lloyd, Jessie C. Laidlaw, John Milne, Geoffrey W. Minney, Blodwen K. Owen, Edward J. Powell, Alaric W. Rowntree, Rupert B. Shorter, Marjorie Summerhill, Raymond Tamblin, Mary E. Todd, Arthur Wells and Edith M. L. Wood.

EXAMINATION FOR BUTTERMILKING AND CHEESEMAKING CERTIFICATES AT STUDLEY COLLEGE, STUDLEY; ON TUESDAY, WEDNESDAY, AND THURSDAY, JULY 14TH, 15TH AND 16TH.

- A Certificate of Merit for Proficiency in the Theory and Practice of Buttermilking to Margaret A. Hart, Kathleen R. C. Hodgson, Muriel M. Johnston, Ruth Lainé, Mary E. Odgers, Una A. Ridgway, Margaret H. Smith, Diana H. Style, Rosa L. O. Vaux, Kathleen Wigglesworth and Ruth E. Yates.
- A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking to Greeba Graves, Muriel M. Johnston and Stella M. Peters.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE DAIRY DEPARTMENT, COUNTY LABORATORIES, CHELMSFORD; ON TUESDAY, WEDNESDAY AND THURSDAY, JULY 21ST, 22ND AND 23RD.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking to R. J. Fleming, Margaret G. Goody, John Grove, Wallace Haddon, Dorothy Owen, Audrey S. Salanson, Mary J. Salmon, Ronald E. Shine and Richard L. Woodgett.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking to R. J. Fleming, John Grove, Wallace Haddon, William F. Heathfield, Dorothy Owen, Audrey S. Salanson, Mary J. Salmon and Richard L. Woodgett.

EXAMINATION FOR DIPLOMA, BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY, WEDNESDAY AND THURSDAY, SEPTEMBER, 15TH, 16TH, 17TH AND 18TH.

A Diploma, with Honours, and Silver Medal for Proficiency in the Science and Practice of Dairying to Laura A. Adlington, Alfred J. G. Clay, Beatrice M. Iles, Jessie C. Laudlaw, John Milne, Olive J. Robison and Rupert B. Shorter.

A Diploma and Silver Medal for Proficiency in the Science and Practice of Dairying to Charles D. Berry, Violet Blow, Charlotte M. H. Bush, Sarah Campbell, Mollie Davies-Cooke, Isabel J. Day, John Dyson, Mary E. Fairfax-Cholmeley, Henry L. Forbes, Violet Foulkes, Helen Hoggett, Rosamond Jackson, Mary Keedwell, Sybil Kendrick-Lloyd, Bernard R. Llewellyn-Ross, Dorothy A. C. Long, Blodwen K. Owen, Stella M. Peters, Edward J. Powell, Ethel E. Price, Norah K. Shepherd, Mary E. Todd, Arthur Wells and Edith M. L. Wood.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking to John W. Hopkins, Florence M. Liddell, Mildred Mallinson and Judith Van Overzee.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking to Lena R. Ault, Nancy L. Baker, Edward C. Davies, Mary J. Harris, Roger J. Hillsdon, Kathleen Holmes, John W. Hopkins, Doris A. Hunt, Leslie R. Huntley, Florence M. Liddell, Margaret Miller, Christopher R. Rushton, Maurice E. Swabey, Clara L. Taylor and Edward B. West.

EXAMINATION FOR BUTTERMILKING CERTIFICATE AT
SOMERSET FARM INSTITUTE, CANNINGTON, MONDAY,
TUESDAY, AND WEDNESDAY, MARCH 30TH, 31ST, AND
APRIL 1ST, 1925.

EXAMINER :

ALEC TODD.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. What is the effect of the following on the milk supply of the country ?
 - (a) Steam ;
 - (b) Brine Cooling ;
 - (c) Pasteurising.
2. How would you treat the milk and cream on a small farm where buttermilking is done twice a week ?
3. What are the chief causes which render milk liable to turn sour ?
4. State the use, and describe the method of using in testing milk, the following :—Lactometer, Gerber Tester.
5. What is meant by ripening cream ? How may the rapidity of the process be regulated, and what precautions would you take during its progress in order to obtain the best results ?
6. Describe the process of the making of Devonshire Cream ?
7. What utensils would be necessary in a small dairy of 15 cows where cream is sold and butter made ?
8. What is meant by the expression Butter Ratio ? State the percentage of fat in the milk and the approximate butter ratio of Shorthorn milk and Jersey milk.
9. Why will an excess of water or casein in butter prevent it from keeping ?
10. What are the precautions necessary on a farm in order to start a Grade "A" milk supply ?

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT
SOMERSET FARM INSTITUTE, CANNINGTON, MONDAY,
TUESDAY, AND WEDNESDAY, MARCH 30TH, 31ST, AND
APRIL 1ST, 1925.

EXAMINER :

ALEC TODD.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. Would a Grade "A" Certified supply of milk be beneficial or otherwise to the Cheesemaker ?
2. In what way could you improve badly tainted milk for cheesemaking, and what difficulties would you be up against in the making of cheese from such milk ?
3. What is the difference in suitability for cheesemaking in the milk of the Shorthorn and Jersey ?
4. By what means can the acidity of milk be increased so as to bring it into the proper condition for renneting ?
5. What effect have the following on the making of soft cheese :—
Acidity ; weak rennet ; too low temperature ; too high temperature ?
6. What is the essential difference in the making of a Cheddar and Caerphilly cheese ?
7. How would you prepare a starter for daily use ?
8. Write a short account of the pressing of a Cheddar cheese, stating the weight of pressure used in the process.
9. What utensils would be necessary on a thirty-cow dairy farm where the milk is made into cheese ?
10. What are the causes of the following :—
 - (1) Soft open textured Cheddar ?
 - (2) A hard, brittle Caerphilly ?
 - (3) A badly cracked pressed cheese ?
 - (4) A soft bitter-flavoured blue-veined cheese ?

EXAMINATION FOR BUTTERMaking CERTIFICATE AT THE
BRITISH DAIRY INSTITUTE, READING; ON MONDAY,
TUESDAY, WEDNESDAY, AND THURSDAY, JUNE 22ND,
23RD, 24TH, AND 25TH, 1925.

EXAMINER :

W. J. GRANT.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. State the reason why milk should be produced and dealt with under absolutely clean conditions.
2. Would you consider it desirable to use a starter ? If you do, state your reasons.
3. What, in your opinion, affects the flavour of butter ?
4. Is there any material difference between the morning's and evening's milk ? If there is any difference, state the cause.
5. How would you prepare, and what should be the condition of cream, when you considered it ready to churn ?
6. Is it necessary to ventilate the churn when churning ?
7. What is the object in keeping a milk record in connection with a herd of dairy cows ? How should such a record be kept ?
8. Describe a butter worker, its preparation, both for use and afterwards.
9. Is there any satisfactory result obtained by washing the grains of butter in the churn ?
10. What is the chief cause of rancid butter ?

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE
BRITISH DAIRY INSTITUTE, READING; ON MONDAY,
TUESDAY, WEDNESDAY, AND THURSDAY, JUNE 22ND,
23RD, 24TH, AND 25TH, 1925.

EXAMINER :

MISS M. M. MACQUEEN.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce* .

QUESTIONS.

1. Name the chief breeds of cattle kept for cheesemaking purposes.
Which do you prefer, and why ?
2. Describe some of the taints in cheesemaking which are caused by wrong or careless feeding.
3. Describe the action of rennet on milk, and how can this action be hastened or retarded ?
4. What is the action of salt in cheesemaking ? What would be the result of (a) undersalting ; (b) oversalting ?
5. What are the causes of spongy curd ? What steps would you take to prevent this trouble, and how would you deal with milk already affected ?
6. Name the various tests used in cheesemaking ? Which do you prefer and why ?
7. What amount of pressure would you apply to Cheddar cheese, and what is the result when (a) overpressed ; (b) underpressed ?
8. Given 100 lbs. of curd, what percentage of loss usually occurs between vatting and ripening in the case of (a) Cheddar cheese ; (b) Stilton cheese ?
9. Why is a smooth crust preferred on a Cheddar cheese, and a crinkled one on a Stilton cheese ?
10. What weight of ripe cheese would you expect to get from 100 gals. of milk when made into (a) Cheddar ; (b) Caerphilly cheese ?

EXAMINATION FOR BUTTERMILKING CERTIFICATE AT THE
STUDLEY COLLEGE, WARWICKSHIRE; ON TUESDAY,
WEDNESDAY, AND THURSDAY, JULY 14TH, 15TH, AND
16TH, 1925.

EXAMINER :

W. J. GRANT.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. How would you prepare and use a starter in buttermaking ?
2. In what way can the separated milk from a buttermaking dairy be made use of to the best advantage ?
3. What causes the ripening of cream ?
4. Why wash the butter grains in the churn ? What are the results obtained by washing and brining ?
5. Which is the better, thick or thin cream for buttermaking ?
6. State what, in your opinion, would be the amount of milk given each year from an average Shorthorn, and an average Jersey ; with the percentage of fat in each milk.
7. What methods would you adopt to produce butter of the best flavour and keeping quality ?
8. Explain the operation of milking ? How many cows should one milker be able to milk regularly ? What is the effect of good and bad milking ?
9. What are the relative values of separated and of skim milk for calf rearing or pig feeding ?
10. How would you ascertain as to whether milk is tainted or not ?

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE
STUDLEY COLLEGE, WARWICKSHIRE; ON TUESDAY,
WEDNESDAY, AND THURSDAY, JULY 14TH, 15TH, AND
16TH, 1925.

EXAMINER :

W. J. GRANT.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. What are the general accepted principles of cheesemaking ?
2. If you are required to make a cheese from milk that is over-ripe, how would you proceed ?
3. Is it ever necessary to vary the amount of starter-rennet and salt used for cheesemaking ? If so, under what conditions ?
4. Suppose that you have to make a cheese without a starter, how would you proceed (a) when the milk was too sweet, (b) when the milk was too acid ?
5. What is the average loss of Cheddar cheese in the curing room ? If higher or lower, give the cause.
6. State how you manage the milk to make a Cheddar cheese from the commencement of milking the previous evening till the renneting next morning ?
7. Does the cutting of curd in any way influence the future in the making of cheese ?
8. Is the flavour of cheese influenced by the process of milking ? If so, how ?
9. Describe the making of any *one* of the following varieties of cheese : Cheddar, Cheshire, Stilton, or Wensleydale.
10. Describe the texture, flavour and colour, when ripe, of the kind you have selected in the previous question.

EXAMINATION FOR BUTTERMILKING CERTIFICATE AT
THE DAIRY DEPARTMENT, COUNTY LABORATORIES,
CHELMSFORD ; ON TUESDAY, WEDNESDAY, AND
THURSDAY, JULY 21ST, 22ND, AND 23RD, 1925.

EXAMINER : ALEC TODD.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. What amount of milk and average percentage of fat would you expect to get per annum from the following individual cows :—
Shorthorn, Friesian, Ayrshire, Jersey, Kerry ?
2. What is meant by the term Butter Ratio, and how could you work it out ?
3. How would you set about producing Grade “ A ” milk on an ordinary farm ?
4. Why is cream ripened for buttermaking, and what is the advantage in doing so ?
5. How would you prepare cream, and Devonshire cream for market ?
6. To what use would you put the following :—Lactometer, Creamometer, Pipette, Butter-worker, Separator.
7. How would you treat butter that you wish to keep for three months ?
8. What profitable use can separated milk and buttermilk be put to ?
9. What is the effect of the following on the milk supply of the country :—(1) Steam ; (2) Brine Cooling ; (3) Pasteurising ?
10. What influences the keeping qualities of butter ? Why is farmhouse butter so often very bad ?

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT
THE DAIRY DEPARTMENT, COUNTY LABORATORIES,
CHELMSFORD ; ON TUESDAY, WEDNESDAY, AND
THURSDAY, JULY 21ST, 22ND, AND 23RD, 1925.

EXAMINER : ALEC TODD.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. How far is successful cheesemaking dependent on the quality and pureness of the milk used ?
2. What are the necessary tests that you would apply during the day in a cheesemaking dairy ?
3. Why is over-acid milk so difficult to handle either for cheesemaking or buttermaking ?
4. Why does milk coagulate when rennet is added to it ? What hastens or retards this action ?
5. What precautions would you take in treating milk for soft cheesemaking ? Is it as important as in hard cheesemaking that the acidity before renneting be of a definite amount ?
6. What is the effect of using either too much or too little starter in cheesemaking ?
7. What is the meaning of the following terms :—Soda Test. Rennet Test. Fermentation Test. Hot Iron Test ?
8. What would most influence the ripening of a Cheddar and Wensleydale cheese ?
9. What do you consider a reasonable time to press a Cheddar and Derby cheese, and what amount of weight would you use ; also state the effect of under-pressing ?
10. Compare the ripening of hard-pressed cheese in :—
 - (a) Temperature of 60° F.
 - (b) " 75° F.
 - (c) Cold Store.

EXAMINATION FOR DIPLOMA AT THE BRITISH DAIRY
INSTITUTE, READING; ON MONDAY, TUESDAY,
WEDNESDAY, AND THURSDAY, SEPTEMBER 14TH, 15TH,
16TH, AND 17TH, 1925.

EXAMINER :

T. J. DRAKELEY, Ph.D., F.I.C., F.C.S.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

CHEMISTRY.

1. Describe the construction of a hygrometer. How is the humidity of the air determined by its use? Of what importance is the result obtained in the store-room for hard cheeses?
2. Describe in detail the method you would adopt for the analysis of a sample of thick cream. If you suspected the presence of boric acid, what qualitative test could be applied?
3. How are the following acids prepared :—Carbonic acid, lactic acid, acetic acid, sulphuric acid? Briefly indicate their properties.
4. Write a short essay on *one* of the following :—(a) the barometer, (b) acidity in cheese-making, (c) nitrogen, (d) milk powders.

BACTERIOLOGY.

5. What bacteriological standards for milk have been adopted in this country? How may the contamination of milk by dirt organisms be detected?
6. Milk has been allowed to stand for one day in four glass bottles. One bottle is then washed with cold water, the next with soapy hot water, the third is washed and sterilised with steam, whilst the fourth is left unwashed. By what simple test would you demonstrate the relative cleanliness of the bottles; what result would you expect, and why?
7. How are commercial "starters" prepared, and used in the dairy? Why are starters required?
8. Write a short account of the influence of temperature on the multiplication of bacteria, and briefly indicate the importance of this subject in Dairying.

EXAMINATION FOR DIPLOMA AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY, WEDNESDAY, AND THURSDAY, SEPTEMBER 14TH, 15TH, 16TH, AND 17TH, 1925.

EXAMINERS :

T. J. DRAKELEY, Ph.D., F.I.C., F.C.S., and W. BURKITT, B.Sc.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce* .

DAIRY FARMING QUESTIONS.

1. What points would you take into consideration in choosing a dairy farm ?
2. Describe systems of book-keeping which you could recommend :—
 (a) For a milk-selling farm.
 (b) For a cheese or buttermaking farm.
3. What are the arguments for and against the dual-purpose cow ?
4. Discuss fully the use of brewer's grains for feeding dairy cows.
5. What do you consider are the essential implements for securing a crop of hay ? What other implements could be, and often are, used on large well-equipped farms ?
6. On a dairy farm of 200 acres, of which 120 acres are under grass, what stock of various kinds do you think would be necessary ?
7. What place should poultry take on a well-managed dairy farm ? Describe the system of management you would adopt, the numbers you would keep, and their probable yields.
8. In many parts of England there will be a scarcity of roots for the winter feeding of cows. How would you get over this difficulty, what substitutes might be used, and how would they compare in cost to mangolds or swedes ?
9. Give the average yield of milk and its composition for all the British Dairy Breeds of cattle.
10. What new Dairying Laws and Regulations come into force this year ?

EXAMINATION FOR DIPLOMA AT THE BRITISH DAIRY
INSTITUTE, READING; ON MONDAY, TUESDAY,
WEDNESDAY, AND THURSDAY, SEPTEMBER 14TH, 15TH,
16TH, AND 17TH, 1925.

EXAMINERS : T. J. DRAKELEY, Ph.D., F.I.C., F.C.S.,
W. BURKITT, B.Sc., and Miss M. M. MACQUEEN.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and answers to Questions 1 to 5 should be fastened together in order in the left-hand corner. Answers to Questions 6 to 11 should be treated in the same way. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

DAIRYING QUESTIONS.

1. State the conditions you would insert in agreements with farmers when purchasing milk for cheesemaking. What tests would you employ to see if these conditions were observed?
2. What points should be considered when purchasing curd knives, milk churns, cheese moulds, presses and shelves for curing for a large Cheddar cheese dairy?
3. Describe the characteristics of good
 - (a) Cheddar cheese.
 - (b) Stilton cheese.

What are the chief faults in either variety, and how may these be avoided?

4. State what you consider the most essential points to be observed when building a curing room for cheese?
 5. What do you consider the most advantageous method of whey disposal from a dairy dealing with 1,000 gallons daily, and what would be the probable financial return of same?
-
6. Describe the best and most economical methods of cooling milk on a farm where there is a good supply of water, and also where such a supply is not available.
 7. What are the advantages and disadvantages of equal and unequal periods of milking?
 8. Enumerate the bye-products of a dairy farm, and state how you would utilise them.
 9. How would you test milk for a dirt at a factory?
 10. Give a full description of the manufacture of clotted cream.
 11. Describe fully the causes which affect the composition of milk.

EXAMINATION FOR BUTTERMILKING CERTIFICATE AT THE
BRITISH DAIRY INSTITUTE, READING; ON MONDAY,
TUESDAY, WEDNESDAY, AND THURSDAY, SEPTEMBER
14TH, 15TH, 16TH, AND 17TH, 1925.

EXAMINER :
W. BURKITT, B.Sc.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. What method would you adopt for testing the acidity of cream ?
Give what you consider are the standards of acidity for ripe, fresh and over-ripe cream.
2. What percentage of butter fat is found in :—
 - (a) Separated milk,
 - (b) Skim-milk,
 - (c) Buttermilk,
 - (d) Fresh milk from Channel Island cows ?
3. Give the points of a perfect sample of butter.
4. Why do you churn cream ? What points should be observed in the operation of churning ?
5. What is colostrum ? Give its analysis and characteristics.
How soon after calving may milk be used for sale as fresh milk, and for buttermaking ? Give your reasons for the time stated.
6. Compare the advantages and disadvantages of separating with the shallow pan method of cream raising.
7. Describe and compare the various methods of testing milk for butter fat.
8. If most of your butter was sent away by post, how would you prepare and pack it to get the best results ?
9. When milk sours what changes take place ? How can souring be accelerated or retarded ?
10. In what way may the colour of butter be affected, both beneficially and injuriously ?

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE
BRITISH DAIRY INSTITUTE, READING; ON MONDAY,
TUESDAY, WEDNESDAY, AND THURSDAY, SEPTEMBER
14TH, 15TH, 16TH, AND 17TH, 1925.

EXAMINER : MISS M. M. MACQUEEN.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. Give difference in composition of milk from Shorthorn, Jersey, British Friesian, and Ayrshire cows. Which would you select for cheesemaking, and why?
2. What would be the result of using colostrum in cheesemaking? How would you judge when the milk of a newly-calved cow is fit for use in cheesemaking?
3. What is rennet? How would you test its suitability for cheesemaking, and how would you store it?
4. What are the advantages of using a "starter" in cheesemaking?
5. Give the percentages of acidity you prefer at various stages in making :—
 - (a) Cheddar cheese.
 - (b) Cheshire cheese.
 - (c) Derby cheese.
6. What effect has temperature on cheesemaking? Give the different temperatures you would prefer at various stages in making :—
 - (a) Cheddar cheese.
 - (b) Cheshire cheese.
 - (c) Derby cheese.
7. When making a quick ripening cheese, and a slow ripening one, what different conditions are required?
8. What result would you expect if curd were vatted up with too low a percentage of acidity?
9. Describe the process you would follow, and precautions necessary, to obtain a good crust on Cheddar cheese.
10. Give the average composition of :—
 - (a) Cheddar cheese.
 - (b) Wensleydale cheese.

The British Dairy Farmers' Association.

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 Douglas, F. W. R., Spitzbrook House, Yalding, Kent.
 Douglas, John, 142, Hanham Road, Kingswood, Bristol.
 Douglas, Loudon Macqueen, Newpark, West Calder, Midlothian.
 Douglas, W. Loudon, Douglas Wharf, Putney, London, S.W. 15.
 Douglas, W. E., Douglas Wharf, Putney, London, S.W. 15.
 Dover, J. G., The Homestead, Gt. Missenden, Bucks (L.M.).
 Doyle, Miss A. M., Munster Institute, Cork.
 Doyle, Miss J., c/o Secretary, Committee of Agriculture, Monaghan, Ireland.
 Drakeley, Dr. T. J., Ph. D., M.Sc., F.I.C., F.C.S., M.I.M.E., 69, Rosebery Road, Muswell Hill, London, N. 10.
 Drew, Edward T., 21, Congo Road, Plumstead, London, S.E. 18.
 Drummond, Prof. R. J., Dairy School, Kilmarnock.
 Drysdale, John, 5, St. Andrew Square, Edinburgh.
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 Dudgeon, Major C. Randolph, Cargen-Holm, Dumfries.
 Dugdale, A. N., Dutton Manor, near Longridge, Preston.
 Dugdale, Major J. Gordon, The Abbey, Cirencester.
 Duncan, John, Kingston-on-Soar, Derby.
 Dunlop, George, Craigaploch, Castle Douglas.
 Dunlop, Quintin, Greenan, Ayr.

Dunn, Henry (L.M.).
 Dunstan, Mrs. R. J., Porloe, Mylor, near Falmouth.
 Dunstan, R. J., Porloe, Mylor, near Falmouth.
 Dyer & Son (represented by T. Dyer), Illston, Billesdon, Leicestershire.

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 Edmead, John W., Bury Fields House, Guildford.
 Edwards, Henry, Hofland Road, West Kensington, London, W. 14.
 Edwards, John, Newton, Ellesmere, Salop.
 Edwards, John P.
 Edwards, Lt.-Col. C. W., Woolston, North Cadbury, Somerset
 Edwards, Major B. M., Hardingham Hall, Hingham, Norfolk.
 Edwards, Miss Katie, Ty-draw Farm, Nelson, near Cardiff.
 Edwards, Sidney, Blackbirds' Nest, Bassaleg, Newport, Mon.
 Edwardes-Ker, Lt.-Col. D. R., Seale Hayne Agricultural College, Newton
 Abbot
 Eglinton and Winton, Earl of, Horns Lodge, Tonbridge, Kent.
 Ellinger, Prof., Landbohøjskole, Copenhagen (H.M.).
 Elliott, C. C., Aston Abbots, Aylesbury.
 Ellis, G. W., Brinning, Moretonhampstead, S. Devon.
 Ellis, H. S., Great Brinning, Moretonhampstead, S. Devon.
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 Voules), Elmhurst Farm, Slinfold, Sussex (L.M.).
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 Emerton, Frank, 78, Grange Drive, Winchmore Hill, N. 21.
 Emerton, H. J., Halesworth, 76, Windmill Hill, Enfield.
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 Enock, G., Margaret Street Works, Windus Road, N. 16 (L.M.).
 Errington, Roger, Victoria Mills, Sunderland.
 Erwood, H. J., 47, Whitworth Road, Plumstead, London, S.E. 18.
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 Evans, Miss D. M., University College of Wales, Aberystwyth.
 Evans, Mrs. E. W., Crickleaze House, near Chard, Somerset.
 Evans, Richard H., Barclays Bank Chambers, Pwllheli, Carnarvonshire.
 Evans, Sir Walter H., Bart., Wightwick Hall, near Wolverhampton.
 Evelyn, Mrs. J. H. C., Wotton House, near Dorking, Surrey. (All com-
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 Evens, John, junr., Burton, Lincoln (L.M.).
 Evens, Thomas, Ramsland, Yealmpton, Devon.
 Everard, W. Lindsey, Ratcliffe Hall, Leicestershire (L.M.).
 Eves, Major H.
 Ewing, Hugh, Birtley Farm, Bramley, Guildford, Surrey.
 Ewing, M., Ashlands House, Crewkerne, Somerset.
 Ewing, W., Gate Street Farm, Bramley, Surrey.
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 ford), 6 & 7, Eastgate, Exeter.

Express Dairy Company, Limited (represented by R. H. Hewson), Tavistock Place, London, W.C. 1.

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Ezra, Capt. E., Lock, Partridge Green, Sussex (Agent. F. P. Musgrave).

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Fawkes, F. H., Farnley Hall, Otley, Yorks.

Fawkes, Tennyson, Church Farm, Leonard Stanley, Stonchouse, Glos.

Fearnall, P., Calverhall, Whitchurch, Salop (L.M.).

Felding, Lt.-Col. Viscount, C.M.G., D.S.O., Street Ashton House, Rugby

Fergusson, D., The Birks, Stamfordham, Newcastle-upon-Tyne.

Ferrand, G. F., Clanville Lodge, Andover, Hants.

Fewson, Mrs. A., 17, Ripplevale Grove, Barnsbury, London, N. 1.

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Finch, Bernard, Flitwick, Beds.

Fish, A. R., Holme Mead, Hutton, near Preston.

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Fitzwalter, Lord, Goodnestone Park, near Canterbury, Kent.

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Fletcher, Miss M. J., 28, Park Road, Chelmsford.

Folkestone, Viscount, Longford Castle, Salisbury (L.M.).

Follett, Lt.-Col. H. S., C.B.E., Rockbeare Manor, near Exeter.

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Foot, Mrs. R. M., White Hill, Berkhamsted (L.M.).

Forester, Capt. F., M.F.H., Saxelbye Park, Melton Mowbray.

Formby, Wm., The Cedars, Stratton St. Michael, Long Stratton, Norkfolk.

Forshaw, James, & Sons, Stud Farm, Carlton-on-Trent, Newark.

Forster, Miss Jane, Dairy Institute, Worleston, Nantwich, Cheshire

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Fortescue, George G., Boconnoc, Lostwithiel, Cornwall.

Forteviot, Lord, Dupplin Castle, Perthshire (L.M.).

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Fortune, Robert, Newhouse, Cranleigh, Surrey.

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Francis, F. S., Wilkin Throop Farm, Templecombe, Somerset.

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 Freeth, Capt. Edwin, 81, West Hill, Putney, London, S.W. 15.
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 Garner, Frank H., 17, Bell Street, Sawbridgeworth, Herts.
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 Giles, Henry, Stockers Farm, Rickmansworth, Herts.
 Gillett, Arnold, Ridgewood, Chorley, Lancs.
 Gilmour, W. P., Balmangan, Kirkcudbright.
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 Gordon, Miss M. E., 51a, Ashby Road, Loughborough.
 Goschen, Kenneth, Swanthorpe House, Crondale, Hants.
 Gosling, Miss E. F.
 Gosney, G. F., 234, Strand, London, W.C. 2.
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 Grant, Mrs. M. A., Westlands, Horley, Surrey.
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 Grant, R., Customs Branch, Australia House, Strand, W.C. 2.
 Grant, W. J., 42, Llanthewy Road, Newport, Mon.
 Gray, George E., Fairstead, Great Warley, Essex (L.M.).
 Gray, Robert, The Manor, Lechlade, Glos.
 Grayson, Thomas, 16 and 17, Queen Street, Derby.
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 Green, H., Tanyard Farm, Oakhill, Bath.
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 Griffiths, Frank, Tyddyn Farm, Mold, N. Wales.
 Griffiths, Miss M. F., 1, St. Peter's Terrace, Cambridge.
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 Grimsdell, Henry John, 36, Snow Hill, London, E.C. 1.
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 Hall, R., Ferry, Bere Alston, South Devon.
 Hall, R. Charles, The Wend Farm, Coulsdon, Surrey.

- Hall, Thomas, Marske Farm, Marske-by-the-Sea, Yorks.
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 Hand, J. Denyer, *The Dairy Offices*, 21, Farringdon Avenue, London, E.C. 4.
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 Hannent, F. Charles, Saltwood House, Hanworth Road, Hounslow.
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 Aldwych, London, W.C. 2.
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 Harding, E. G., J. P., Foscote, Grittleton, Chippenham, Wilts.
 Hardman, N., The Elms, Barton, Preston, Lancs.
 Hardy, Charles, Argos Hill, Rotherfield, Sussex.
 Hare, Lady Kathleen, Brokenhurst Park, Brockenhurst, Hants.
 Harewood, Earl of, Harewood House, Leeds, Yorks.
 Harford, M. W., Horton Hall, Horton, near Bristol.
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 Hawes, Thomas, Bent Hill Farm, near Buckingham.
 Hawkins, A. W. Bailey, Stagenhoe Park, Welwyn, Herts.
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 Hay, A., East Anglian Institute of Agriculture, Chelmsford.
 Hay, Percy T., 3, Brookfield Park, Highgate Road, London, N.W. 5.
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 Hayes, G. Constable, The Greenway, Shurdington, Cheltenham.
 Hayward, Colonel J. F. Curtis, Quedgeley, Gloucester (L.M.).
 Hearnshaw, R. Fletcher, Foxhill, Burton Joyce, Nottingham (L.M.).
 Heath, Mrs. Enoch, The Elms Farm, Raglan, Mon.
 Heaton, Stuart, Poplar Farm, Iken, Tunstall, Suffolk.
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 Heaver, Exors. of the late John W. T., Ratham House, Chichester, Sussex.
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- Herbert, E. G., c/o Lloyds Bank Ltd., 6, Pall Mall, London, S.W.1.
- Herbert, F. F., The Graig, Penalt, Mon.
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- Hicking, Sir William N., Bart., Brackenhurst Hall, Southwell, Notts
- Hicks, Miss V., New Victorian Club, 30a, Sackville Street, London, W. 1.
- Higgins, W., Kilburn Lane Farm, Kensal Green, London, N.W.
- Higgs, Clyde, Hatton Rock Farm, Stratford-on-Avon.
- Higgs, James, 2, Canterbury Road, Brixton, S.W. 9.
- Hignett, L., Hook End Farm, Checkendon, Oxon.
- Hill, G., & Sons (represented by E. F. Hill), Evercreech, Somerset.
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- Hitchen, Thomas L., Highfields, Baddiley, Nantwich, Cheshire.
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- Hodge, Mrs. Arthur B., The Redings, Totteridge, London, N. 21.
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- Holborrow, J. P., Northfield Farm, Charlton Kings, Glos.
- Hole, Sidney, Yew Tree House, Albourne, Hassocks, Sussex.
- Hollington, Alfred Jordan, Forty Hill, Enfield, Middlesex.
- Hollingworth, E., C.B.E., Moordale, Dobcross, Yorks.
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- Holman, H., J.P., Holcombe Down, Teignmouth, Devon.
- Holmes, John, Holmlea, Newcastle Road, Shavington, Crewe
- Holmes, W. F., The Thatched House, Hampton Wick, Middlesex.
- Holmes-Hunt, W., Crawley Down, Sussex
- Holt-Thomas, G., North Dean House, Hughenden, Bucks.
- Holzappel, Max, The Marians, Elstree, Herts.
- Hooker, John Henry, The Firs, Buckingham.
- Hoole, Mrs. G., Ivy Mount, Bolton Road, Chorley, Lancs.
- Hope, H. E., Hope's Wharf, Hammersmith, London, W. 6.
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- Horne, W. Edgar, Hall Place, Shackleford, Godalming, Surrey.
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- Hoskin, Miss Dorothy U., Cartuther Barton, Liskeard, Cornwall.

Hosking & Sons (represented by O. H. Hosking), Fentongollan, Probus, Cornwall.
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 Howard, Miss Margaret, 15, Victoria Square, Newcastle-on-Tyne (L.M.)
 Howard, Robert, Pound Farm, Esher, Surrey.
 Howie, James, Hillhouse, Kilmarnock.
 Howkins, Rex, Clifton Reynes, Newport Pagnell, Bucks.
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 Hudson, Miss I. M., 55, South Street, Reading.
 Hughes, Herbert E., The Bungalow, Broxbourne, Herts.
 Hughes, James N., Moreton Farm, Thame, Oxon.
 Humphreys-Owen, Major A. C. J.P., Glansevern, Berriew, S.O., Mon.
 Hunn, Capt. K. W., Porters Farm, Otford, Sevenoaks.
 Hunt, H. C., 17, Copse Hill, Wimbledon, Surrey.
 Hunt, James, Ltd. (represented by E. A. Hunt), Atalanta Street, S.W. 6.
 Hunt, W., Traceys Farm, Berry Pomeroy, Totnes, South Devon.
 Hunter, J. A., & Co., Ltd. (represented by H. M. Blackburn), Bootle, Lancs.
 Hunting, J. C., Pankridge Farm, Gt. Missenden, Bucks.
 Huntington, Major A. W., Wellesbourne House, Warwick.
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 Ismay, James H., Iwerne Minster House, Blandford, Dorset.
 Ive, C., New Haw Road, Addlestone, Surrey.

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 Jackson, Miss A., Shirehall, Hereford.
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 James, Miss E. E., Heathlands Home Farm, Wokingham, Berks.
 James, Miss Rachel, Llancayo, near Usk, Mon.
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 Jamieson, J., Round Bush, Annan, Dumfriesshire.
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 Jarvis, F. B., Little Gassons, Duddleswell, Uckfield, Sussex.
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 Jeffrey, A., 70, High Street, Walthamstow, Essex.
 Jenkins, Evan O.
 Jenkins, T. E., Kilorough Farm, Parkmill, Glam.

Jenkinson, F. H., 41, Church Lane, Handsworth, Birmingham.
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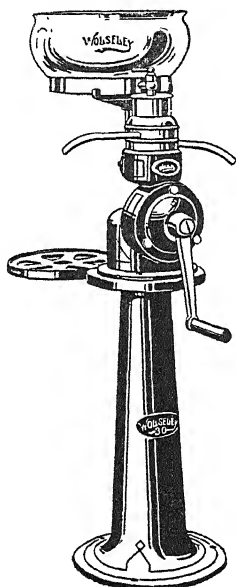
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1927.

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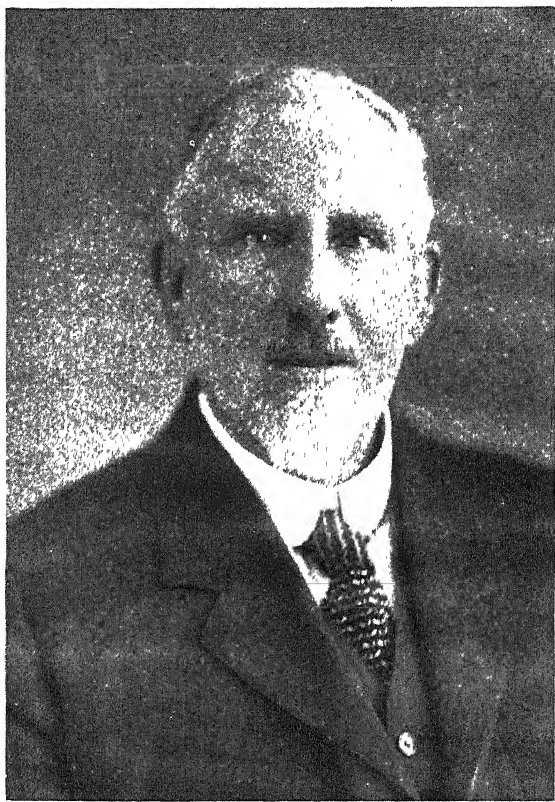
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The British Dairy Farmers' Association does not guarantee the accuracy of the statements contained in the various contributions to this Journal, nor does it necessarily, as a body, endorse the conclusions and views of the contributors: the authors themselves are solely responsible.



The late B. RAVENSCROFT.

MEMOIR OF THE LATE B. RAVENSCROFT.

THE close of the year 1926 brought to the Association a sad loss, the death of one of its oldest members, and at the same time valued servant, the late Mr. B. Ravenscroft.

For many weeks our late Secretary had been affected by heart trouble the least exertion causing him great difficulty in getting his breath. In spite of this the arduous duties previous to and during the last Dairy Show were carried out with scarcely a break. It was only on the closing day, or more correctly the day following—Saturday, that on returning home, complications set in which confined him to his bed and eventually caused his death on the 13th December.

Birkbeck Ravenscroft, who had been a more or less close friend of the present writer for upwards of forty-six years, was born in 1857, being the eldest of the three sons of the late Francis Ravenscroft, the founder and for many years Manager of the once popular Birkbeck Bank, an outcome of the Birkbeck Building Society established in 1851.

Birkbeck finished his education at Rugby where he made many friends, and very quickly gained a place in the 1st XV.

My first acquaintance with the subject of this memoir was brought about through our mutual interest in goat breeding, and almost from the first my friend was among the prominent members of the British Goat Society. At the time of our meeting he was residing with his parents in St. John's Wood and held a minor post in the bank with which his name was associated. Later on he advanced to the position of Assistant Manager.

Mr. Ravenscroft at that period was residing at The Noke, Bricket Wood, half way between St. Albans and Watford, and his father having died a wealthy man some few years previous, he was enjoying very comfortable circumstances. Possessed of strong sporting proclivities he was now able to indulge more freely in his favourite pastime—riding to hounds, becoming a regular attendant at the meets of the local pack of harriers of which a few years later he was offered, and accepted, the Mastership. Here he was also able to extend—which he did largely—his herd of goats, while to these he added a few Jersey cows and thus began his connection with Dairy Farming.

Unfortunately our friend's financial resources became unequal to the heavy calls on his purse which his various pursuits occasioned. Money troubles presented themselves which necessitated leaving the Noke with its acres of land, kennels and stables, and returning to a more modest residence and ménage.

In the early part of the war Ravenscroft was residing at Deal, and we saw much less of each other than previously, but a circumstance occurred in 1917 which brought him back to reside in the outskirts of London—Richmond, to be precise. I must now revert to what more closely concerns our late Secretary's early connection with the Association.

It was while I was myself holding the post of Honorary Secretary that I got my friend to join—which he did in 1881.

Shortly after this he was made Honorary Auditor, a post for which his experience in the Bank well qualified him. In 1907 he was elected a member of the Council.

Mr. Ravenscroft's first connection with the Dairy Shows was as steward of the goats, figuring in this capacity from 1902 to 1905. Three years later he was appointed to help the writer as joint steward of Finance, where again his services proved very acceptable.

The outbreak of war caused the Dairy Shows to cease after 1915 and until 1919, and this had a serious effect on the Society's finances. It was during this interval that the event alluded to above in 1917 occurred. The secretaryship became suddenly vacant and there was much difficulty in finding someone suitable to carry on the work.

Mr. Ravenscroft came forward and offered his services, which were gratefully accepted, and his appointment as Secretary took place in February of that year. It will, I think, be readily accorded that during these nearly ten years our late friend discharged the duties of his office in an able and highly satisfactory manner, especially during those long and busy hours at the Agricultural Hall each October. It was here, it seems to me, that his qualities shone to the best advantage. Only those who have had personal experience on such occasions can fully appreciate how patience, tact and temper are tried throughout the day. This official is expected to be available at any moment, and to have an answer to every question. Writing from my own observation during these many years our friend never appeared flustered, and very rarely put out, or annoyed. One enquirer would follow another in a regular queue, and all received courtesy and help when it could be given. Attributes such as these conduce to popularity, and that our late Secretary was very popular no one, I feel sure, will deny.

There was one prominent feature in Mr. Ravenscroft's activities which all members of the Council must have recognised—his whole hearted interest in the welfare of the Association. With him it was the British Dairy Farmers' Association first, last and all the time. He threw all his energies into the Dairy Show each year with the object of increasing the invested capital, and this he most certainly achieved. His loss will be long felt and by many deplored.

A FORAGE CROP SYSTEM FOR DAIRY FARMERS: A WAY TO CHEAPER PRODUCTION.

By JAMES C. BROWN.

PRIZE ESSAY.

It is common knowledge that in many countries arable forage crops are employed by stock raisers to a much greater extent than by the farmers of this country, and the recent Report of the Imperial Economic Committee calls attention to the increased output of farm produce which can be secured by the greater use and by the improvement of these crops. The unprofitable condition of grain growing, on average land, has resulted in a large area of land being laid to grass. That the occupiers of this new grassland have turned to cow-keeping and milk production as a possible means of solving the problem of winning a profit from their farms is shown by the increase in the number of dairy cows disclosed by the annual returns. A consequence of this change over from grain to milk production is that, at the present moment, the milk market is glutted and there is no indication of such expansion in consumption as would absorb the increased production. It is, therefore, worthy of consideration whether the practice, now common, of purchasing large quantities of costly feeding stuffs in order to produce additional quantities of liquid milk for which a market does not exist is a wise one. On the average, home-grown grain is less expensive per nutrient unit than purchased foods, and the unit in rough foods is much cheaper to produce. Here, then, is the foundation of a policy of cheaper production. An examination of any dairy farmer's accounts reveals two outstanding items of expenditure—feeding stuffs and labour—and investigation leads to the conclusion that it is in the lowering of these costs that the milk producers most hopeful prospect lies. A smaller number of cattle more completely provided for by the farm itself. It is an accepted fact that to-day the farmer's purchases are made at a much higher rate than he receives for what he has to sell, therefore he must profit by making his farm, to the greatest possible extent, self-supporting. It is unnecessary to stress the importance of high-yield cows, these of course pay well for purchased foods, even at high prices, but it is quite easy to attach too much importance to high yield in considering the position of the average dairy farmer. For many years to come really high producing cow must form a very small percentage of the national herd; they are difficult to buy and not too easy to breed. It is with the average cow that the majority of dairy farmers are concerned and, in her case, economy in feeding is of prime importance in inducing her to leave a profit. By economy it seems likely that some farmers win a little profit, even from cows whose yield is below the average. At the

present time liquid milk sells for approximately 40 per cent. more than its value by comparison with oversea dairy produce, and it is probable that the future will see this margin narrowed, although to those not working under favourable conditions of situation and soil, the present prices give little in the way of profit and may even leave the balance on the wrong side. Any further fall in the wholesale price must tend to eliminate those who are not advantageously situated for the production of milk. Cost investigations show that, given uniform management, the cost of production varies greatly, influenced by factors which are not under the farmer's control. The advantages of the foreign raiser of dairy products are less obvious than those of the corn grower, but cheap pasturage and feeding stuffs are among the most important. The grazing of cattle out of doors all the year round is a further means of reducing costs. Peculiarly favourable soil conditions under which stock naturally thrive well operate in favour of some oversea competitors. Nature has made soils, on which all organic life depends infinitely variable in chemical and physical make up. Climate is equally diverse in its influence on the farming industry and difference in the character of the seasons may affect the financial aspect of the dairy farmer's operations. Variations between district and district and even between different farms often have an important bearing on the success of the dairy farmer. The natural character of his land is still the chief factor in determining the success or failure of the farmer's business, despite the aid which science has brought to bear on the various branches of his occupation. The farmer who is fortunate enough to occupy land which will yield, without artificial aid, a 60-bushel crop of wheat or fatten a bullock to the acre, without the use of purchased foods, has a lead over him whose land needs generous help to give average returns. Moreover, certain farms are naturally unhealthy for livestock, the reasons for which are not known. The farmer's raw material varies to a much greater extent than that of the manufacturer whose conditions of production are under control and can be rendered uniform. This fact is often overlooked by those who give advice to the farming community. Mr. Henry Ford advises the dairy farmers of a district to pool their stocks in a great centralised business providing ideal conditions in which the animals would be fed cleaned and milked by the aid of electricity, but no mention is made of the electric conveyors which such a concentration would render necessary to carry so large a herd to distant pastures, to bring food from far-away fields, and to carry back the manure. It would appear that the saving effected in one direction would be more than lost in another—a common experience in efforts to improve farming practice. Although the labour involved in the care of dairy stock is much greater than in other farm animals, it is the cost of food which is the most important factor influencing the cost of milk production. The scheme of the Wiltshire farmer who takes his cows to their food all the year round and leaves the manure where it is made and needed, is more promising than that of the motor

magnate, eliminating as it does much of the direct labour demanded in the ordinary way of cow-keeping. Food absorbs about 75 per cent. of the cost of producing a gallon of milk and, therefore, chiefly influences the total cost. Expensive feeding quickly absorbs the saving resulting from labour economies and of labour-saving machinery.

The business of the stockbreeder is founded on the herbage of the land, and its capacity to make growth, meat or milk chiefly determines the success or otherwise of his undertaking. When these have to be secured largely by the use of purchased concentrates his chances of success are greatly reduced. Purchased foodstuffs, at existing prices, can only be profitably employed when they are used for the purpose of balancing home-grown fodder. The quantity and quality of the rough fodder produced on the farm is, therefore, a matter of great importance. The same species of plant may have very different values, according to the nature of the soil on which it is grown. The best fattening pastures do not, as a rule, differ conspicuously in botanical composition from others of comparatively inferior quality. The difference in the grazing value of land of similar general appearance is rarely exposed by chemical analysis and the cause has long baffled investigators. The greater feeding value of oat straw and swedes in the North of England as compared with the South is equally puzzling, but little difference being shown by analysis. During the past half century much pasture land has been greatly improved in grazing value by the use of basic slag and other phosphate manures, and by the extended use of lime, which, no doubt, improves the quality in addition to increasing the quantity of the grass herbage, but has its chief use in causing the growth of an abundance of white clover, a plant whose grazing value is unexcelled, its chief drawback being its small yield and short-growing season. The encouragement of this plant is one of the most important advances made in stock farming in recent years ; in many cases its development in pastures has more than doubled their grazing value.

Pastured grass of good quality is the most economical food available to the stock farmer, the animals gathering it themselves without the expenditure of human labour. When, however, grass is made into hay the cost per nutrient unit is increased by the labour expended on it in the process, and again in feeding ; the cost of handling the manure may also have to be added. Except where grassland is of unusual quality, rough fodder can be produced on arable land at a lower cost, and in much greater quantity, than by the permanent grass hay crop. The summer grazing period also is not uniform, in certain districts grass makes abundant growth during the whole grazing season, but over a much wider region both the quantity produced and the feeding value falls off rapidly after mid-July, resulting in the case of milch cows, in a rapid decline in the milk yield. No doubt a similar falling off takes place in growth and weight increase in other animals, but in their case it is not so readily noticed. A striking difference is seen

in cows kept indoors during the summer months, the output of milk being much steadier. It is always a difficult matter to maintain a steady flow of milk during the summer months : in this respect winter management offers less difficulty.

In bad grass years, even a considerable allowance of concentrated feed, will not keep up the yield to a proper level. It would be an obvious benefit to the dairy farmer if the succulent food of the cow could be kept at a uniformly high level of quality throughout the summer period. The question, therefore, arises as to whether a purely grassland farm is best suited to the requirements of the dairy farmer. Permanent grass is slow to start growth in the spring by comparison with suitable temporary grass and the period of really high productivity is, on average grassland, short. A temporary pasture, in which wild white clover is a dominant constituent, if well supported by mineral manures, is specially suited to the needs of the dairy cow and is preferred by her to old established grass. Moreover, such grass is storing fertility in the soil in such a manner as to make possible a profitable cereal crop when the land is again brought under the plough. Even at present prices, in relation to labour costs, grain crops are profitable if the yields be high enough. This is a much more effective method of raising the yield than is direct manuring. British arable farming is bound by tradition to the four-course system—not long ago it was the custom to insert a clause in leases reserving complete adherence to this system. It is questionable, in the present circumstances, whether the old system, in spite of its obvious merits, offers the best means of obtaining economic returns from arable land. The greatest possible production of food from the land may interest the nation in the not distant future, but the farmer of to-day is concerned with the problem of earning a profitable return, and 20 per cent. of profitable corn land, therefore, is preferable to 50 per cent. which is barely paying expenses. The four course plan does not, on average land, maintain the humus content of the soil at a level which will give high yields of grain ; under this system the effect of artificial manures on the yield is strictly limited and a point is soon reached beyond which it is not profitable to force the yield. When land has been in grass several years one or two grain crops may be obtained in which the yield is good enough to leave a profit. It may well be that in addition to his natural and commercial advantages, the oversea producer is evolving a more economical system of farming than the established system which flourishes in Britain. The system practised in the Argentine is worthy of study by British farmers as it is based on sound principles and secures the maximum economy of labour with high production. It is founded on the lucerne crop, which grows luxuriantly in that country, and is a simple alternation of this crop with cereals, each crop being an excellent preparation for the other. Lucerne is one of the most nutritious forms of fodder and the crop is one of the best means of enriching the land for a grain crop.

Leguminous crops form the best foundation for a new system of farming arable land in which stock products are the chief object. The value of these crops has been grasped by the farmers of the United States to a greater degree than by British agriculturists, the area under lucerne doubling in that country each decade since 1890, while other leguminous forage crops are being grown in increasing quantities. In one state land is said to have increased in value by 90 per cent. in six years owing to the rapid extension of the use of this crop.

Leguminous crops call for the special attention of stock farmers because of their high protein content and the large percentage of mineral matter they contain. Unfortunately, it is not possible for the farmers of this country to follow exactly the American plan of relying mainly on the lucerne crop because it does not succeed generally in this country, which is indicated by the fact that, while the world area under this crop is rapidly extending, in England it is actually shrinking. Probably strains could be raised which would flourish under British conditions. The first attempts to grow the crop in the United States were attended by failure. Experience has shown that it is in finding a suitable type for particular conditions which is important, and that it is of little use trying, by artificial measures, to adapt land to the crop. The reasons for its failure in Britain are not understood. Sometimes, on quite a small plot, which gives uniform yields of other crops, lucerne will vary between complete failure and a luxuriant growth; a deep, dry subsoil is one of the conditions of success. Apart from the lucerne crop there are several native leguminous crops, which offer distinct promise of making useful substitutes for this important crop which it has been claimed equals wheat in its potential value to the human race. It has to be admitted, however, that at the present time, there is no crop which can be grown in this country which is quite the equivalent of lucerne where it thrives naturally and may yield six tons of hay per acre. A considerable number of more or less suitable leguminous crops can be grown, including red clover, alsyke, vetches, sainfoin, kidney vetch, peas and beans.

As a grazing plant white clover gives the nearest approach to the use of lucerne abroad and it is not difficult to visualise the benefits a crop equal in feeding value and capable of producing the yield of lucerne would confer on British agriculture. Legume hays are particularly useful to the dairy farmer in maintaining the health of his stock and in reducing his feeding costs. The vetch crop is one of the most commonly used in this country as a hay crop, the clovers being most frequently mixed with grasses which impair their special feeding value. Hay from field peas cut in the early flowering stage, is equal in quality to lucerne hay, but is somewhat more difficult to make. A hardy variety of pea which can be sown in January will give a good yield of hay if cut just after flowering commences and will

afterwards give an aftermath of equal weight. Sainfoin, where the land is suitable for the crop, makes excellent hay and trifolium may be used in special circumstances. Two points of vital importance in the making of legume hay are that cutting shall take place in the early flowering stage and that the leaf shall be preserved. The dried leaves of the lucerne plant which may reach 50 per cent. of the total crop contain 17·3 per cent. of protein and 3 per cent. of fat, the stems 1·8 per cent. and ·4 per cent., respectively. There can be little doubt that a much greater use of these hays would operate to the advantage of dairy farmers.

A comparatively recently introduced forage crop promises not only to increase the stock carrying capacity of land, but at the same time to be a means of reducing the cost of winter feeding. Marrowstem kale holds a position, so far as composition is concerned, midway between roots and grass and its average yield of nutrients per acre is perhaps the highest of all British crops. This crop is much less costly to grow than roots, as it needs more simple soil preparation. The root crop is expensive and uncertain and contains a high percentage of water, but is peculiarly suited to the four course system of farming, in that it gives opportunity for cleaning the land and enables the straw to be turned into manure by which soil fertility is restored. In recent years this method of farming has become expensive. Farmyard manure produced in this manner is now too costly in view of the relatively low price of the farmer's produce. The marrowstem kale crop can be employed in a different way as it will grow year after year on the same land and needs much less cultivation than root crops owing to its vigorous root system and its rapid growth. Its nutritive value is approximately 50 per cent. higher than roots and it contains several times as much mineral matter. Marrowstem kale can be grown under average conditions at a cost of 6*d.* *per cwt.* It does not need the costly preliminary cultivation demanded by the root crop unless the land be very foul. It thrives best when given the same preliminary cultivation which the cereal crops receive, top dressing with nitrogenous manures being the most important factor in achieving success. The crop is very resistant to frost and is rarely damaged by it and it is *not dangerous to the health of stock to feed it when frozen*, whereas, mangels which have been frosted are never again fit to give to stock even after the frost has completely gone from the bulbs. Marrowstem kale can be fed from early September until the end of February. It is a suitable fodder for all kinds of farm stock and combines well with legume hay; the writer has obtained good yields from this combination with an expenditure on concentrated foods which would surprise most dairy cow-keepers. It has a higher dry matter content than roots and far exceeds them in mineral matter and protein; 84 lb. contains nutrition sufficient to form the maintenance ration of a full sized dairy cow with an excess of protein and a deficiency of dry matter. In the case of a cow yielding four gallons

of milk daily, 84 lb. of kale and 14 lb. of a milk production mixture compounded with the composition and character of the kale crop in mind, raises the total dry matter to the required amount and provides for all the needs of such a cow. The $\frac{3}{4}$ -cwt. of kale costs 4½d. and this combination, therefore, makes a very economical plan of feeding, although hay or straw is eliminated entirely. So far as chemical composition is concerned the above ration closely approximates grass at its best. Mr. Bond gives an example of a cow yielding daily 10 gallons of milk fed on similar lines. Marrowstem kale makes a very successful combination with legume hay. Recent experiments carried out in America have shown that well won legume hay can be made to replace about 75 per cent. of the concentrates commonly used without affecting the yield of average cows—14 lb. of lucerne hay replacing 8·5 lb. of concentrated foods and thereby effecting *a daily saving of about 4d.* in the cost of food per cow. For cows giving three gallons daily the following ration is suggested as effecting a considerable saving on standard practice :—

Marrowstem kale	...	...	50 lb.
Legume hay	...	...	20 „
Maize meal	...	...	3 „

For further gallons a balanced milk production mixture would be fed in addition in the usual way. As both kale and the legume hay are high in lime content all the requirements of a complete ration are met. The legume hay-marrowstem kale combination is also particularly suited for feeding growing stock, having a narrow nutritive ratio.

Home-grown concentrated foods are, on the average, cheaper than those purchased and a good supply of these foods tends to keep the imported article down to a reasonable level of price. There is, therefore, a clear advantage in employing some of the land now being laid to grass for the purpose of supplying a part of the needs of the live-stock in this respect. Protein-rich concentrates are most needed by the dairy farmer and are the most costly to buy. It is possible to produce advantageously a proportion of what is needed on the farm. For this purpose no crop is more suitable than a mixture of beans, peas and oats or beans, vetches, oats and barley; the former mixture should be sown in January or February, the latter in October or November. The straw of the mixed crop makes useful rough fodder and, in combination with marrowstem kale, makes a perfectly satisfactory maintenance ration for dairy cows fed as follows, without chaffing :—

Beans, peas and oat straw	...	12 lb.
Beans, peas and oat grain	...	2½ „
Marrowstem kale	...	50 „

The mixture crops have several advantages over pure cereals: in the first place they give, on average and weaker soils, a much heavier

yield of grain and straw. On land not too weedy these crops can be grown several years in succession with success, in fact the yield often increases rather than diminishes with the number of crops. The dense canopy formed by the crop keeps down weeds, and under favourable conditions, most weeds can be actually killed out by the smothering effect. Owing to the proportion of leguminous plants these mixtures contain they make a suitable preparation for the cereal crops. The autumn sown crop is resistant to drought and if the pastures become parched at midsummer it can be used as green fodder to carry the stock over the period of scarcity. These mixtures are very cheap to grow and are amongst the most reliable of farm crops. They are harvested with the binder and are threshed and ground with the usual machinery. The meal is well suited to form about 50 per cent. of milk production mixtures. The crop should be cut somewhat unripe and allowed to ripen out in the stock when the straw has a value approaching that of hay.

The outstanding characteristic of the grazing season is the great advance in thriftiness of all farm stock and the abundant flow of milk which takes place with the coming of the young grass in the spring. Recent experiments have tended to suggest that it is possible to secure a uniform output from grass during the whole grazing season, common experience is that growth increases rapidly during the early summer and then falls off equally rapidly after the zenith is passed. The period of high production is often short, and should the months of June and July be dry a rapid decline in the yield of milk takes place; this decline is generally much steeper than is justified by the influence of advancing lactation. There is probably a tendency in cows at this period to store up fat in anticipation of winter at the expense of milk production. However, cows kept indoors during the summer months show the same steadiness of yield which characterises winter production and that the freshness of the fodder has an important influence on the milk flow is shown by the rise in yield which follows the turning of cows into a good aftermath. An ample supply of fresh green fodder is needed to keep down expenditure on concentrated foods. Close grazing of pastures is sometimes recommended in order to keep the herbage fresh but this practice is accompanied by a progressive falling off in yield as the season advances and especially so during a dry spell. Succulent fodder can be obtained by growing suitable crops on arable land. Such crops are generally found to be less costly than making up the deficiency of the pastures by feeding concentrates. The cost of cutting and hauling the crops to the cows is an obstacle involving, as it does, a considerable expenditure on labour. What is required is a high yielding arable crop of suitable character, which is hardy enough to permit of pasturing, into which cows may be turned for a short time each day, thus saving the expense of cutting and hauling. In from one to two hours, cows will consume a full ration.

When the ground is firm the crop is not seriously wasted by

grazing in this manner. The following mixture may be tried experimentally for the purpose :—

Bokhara Clover ...	...	...	15 lb. per acre.
Alsike ...	...	...	6 „ „
White Clover ...	...	...	1 „ „
Wild Trefoil ...	..	...	3 „ „

Bokhara clover is a large growing leguminous plant, which, if consumed before the flowering period is much advanced, has a chemical composition identical with that of lucerne. After the flowering period it rapidly becomes woody and unpalatable. Wild trefoil is a smaller plant than the commercial kind, but rapidly covers the ground and gives, in a short time, much the same kind of herbage as white clover in a permanent pasture. The mixture should be sown as early as possible in the spring, when, by August it will give a dense growth of nutritious fodder. The second year's growth may be cut twice for hay or, once for hay, and once grazed as in the first year. Care is necessary in bringing cows from a bare pasture on to the crop as there is a possible danger of their becoming blown when the leaves are wet. As the crop consists entirely of legumes its high protein content should be borne in mind when supplementing it with concentrates.

The plan outlined above involves the use, in the raising of dairy products, of a considerable proportion of arable land, a system which has been proved to be effective by the Danes. The advantages of the system are: (a) an increased output from the land; (b) reduced cost of feeding; (c) the curtailing of expenditure on purchased feeding stuffs; (d) the fertilising and amelioration of the land through the agency of leguminous crops; (e) the production of profitable cereal crops; (f) the use of temporary pasture with herbage under control and free from the taint of animal diseases. The details of the cropping need adjustment to the peculiar conditions of each farm as the objects aimed at can be achieved in many different ways. It is a question whether the reverence in which permanent grass land is held is justified. That there is a large area of land in this country which gives its best service when employed as permanent pasture cannot be denied, but it is also true that a much greater extent produces little by comparison with what it is capable of under the plough. Measured in digestible nutrients average land, under the plough, is three to four times as productive as grass land, the problem is how to convert the increase without incurring expenses which outweigh the benefits of higher production. It has been noted that other countries have been able to solve this problem, but it is doubtful if their methods, in detail, can be practiced with success here. In this country it is clear that an arable system of farming livestock must include temporary pasture, but such pasture need not necessarily be confined to the type which is common at the present time. The value of temporary pasture has been greatly enhanced since the discovery of the special virtues

of wild white clover. It is easy to visualise the advantages which would accrue to British agriculture were a large growing reliable leguminous plant of the nutritious character of white clover and as productive as the American alfalfa available for cultivation in this country.

What could be accomplished by such a crop is indicated by what has been achieved in other lands. The scheme suggested is an inversion of the traditional arable practice in which stock-keeping is an adjunct to grain growing. The new plan takes cognisance of the fact that while the price of bread has remained stationary during the past 200 years the price of meat and other animal products has advanced from three to four times. It is the opinion of economists that this tendency must continue, therefore, grain growing must yield its time honoured position in this country to stock farming and arable land must provide primarily for the needs of the livestock while grain production is confined to that land which will produce high yields.

DAIRY FARMING IN FRIESLAND.

By R. WEATHERALL.

General—It is remarkable that the two foremost dairy farming countries in the world—Denmark and Holland—are both small, and are singularly devoid of mineral and industrial wealth. It is still more remarkable that each has had to face the fierce competition of cheap food supplies from the New World during the last half century without any effective system of fiscal protection, and that in each agricultural development has depended mainly on the activities of the farmers themselves, mainly through co-operative efforts, unhampered by the clumsy assistance of wealthy governments, and away from the disturbing influence of party politics.

In quality of stock, crops, and produce, in soil fertility, in the application of new scientific methods, and in marketing organisations for agricultural produce these two countries are about equally advanced and compare favourably in all these respects with any other country in the world. Specialisation and development in dairy farming in both these countries has reached a very advanced stage; in many respects very similar, in others showing striking differences. In Denmark about nine-tenths of the land is under the plough, bacon is nearly as important as butter, and most of the export trade is done with England. Holland, on the other hand, still remains a grassland country, bacon is relatively unimportant, and cheese is one of the largest items in the export trade, most of which is done with Germany. This last point may help to explain why so little is heard in England about Dutch farming, in comparison with Danish, although Holland is actually more accessible than Denmark, and its agriculture exhibits features more resembling our own than anything found in Denmark.

In Denmark the system of agriculture in common practice is almost exactly the same in all parts of the country, but in Holland different conditions have produced strikingly different types of farming in different parts of the country. Bulb growing around Haarlem, market gardening at various centres, arable farming in Groningen and the potato-starch industry around Veendam, all represent systems of agriculture which are very highly organised and well worthy of attention, but as a whole the dominant system of agriculture is dairy farming, based on grassland, and is most highly developed in the province of Friesland around the town of Leeuwarden. The following account

deals only with farming in Friesland, except where other parts are mentioned for purposes of comparison.

Friesland forms the north-western part of Holland and is a province about as large as Wiltshire or rather less than Kent. It is entirely an agricultural province and the only town of considerable size is Leeuwarden, which is the centre of all local agricultural activities and is one of the largest cattle markets in Europe. The climate is very similar to that in England, perhaps a little cooler in summer, and certainly more trying in winter. The absence of high ground leaves the land exposed to winds from all directions and compels farmers to house their stock in winter more carefully than is necessary here. The soil as a whole is distinctly fertile, but varies in nature from clay to fenland peat. The most fertile part of the province is supposed to be the belt of clay, containing a fair leavening of humus, which runs in a south-westerly direction from Leeuwarden. This is the area which is supposed to supply the best Friesian cattle, and many of the famous Dutch breeders of these animals have their farms within it.

One of the most serious national problems in Holland at the present time is the very rapid increase in population in a country which already shows serious signs of overcrowding and where opportunities for further expansion in the means of sustenance are very small. This increase has a great influence on the price and rent of land, it helps to explain the high state of fertility of the soil through artificial improvements, and the energy which is being thrown into the reclamation of marshes and heaths. £4 and £5 per acre represent *average* rents for fair agricultural land in Friesland, and for really good land the rent is considerably higher. The selling price of land is correspondingly high, and varies between about £70 and £100 per acre for what is considered land of average quality with buildings included. Such high rents are a very serious tax on the productive capacity of the soil and its ability to yield a profitable return to tenant farmers. An elementary knowledge of economics is sufficient to make one realise that when land is as dear as this the reclamation of wastes, either heath or marsh, is a much more profitable business than when land is cheap. The efforts being made at present by the Dutch Government to extend the cultivated area are quite heroic when viewed either by the expense involved or the results obtained. The most striking case is, of course, the scheme which is now on foot for draining the Zuider Zee, but many years must elapse before land so obtained is in full production. In Friesland alone, in 1925, 2,100 acres of marsh were drained and 725 acres of sandy wastes brought under cultivation.

The greater part of Friesland is not actually below sea level, but in no part is it much above it. The highest ground usually consists of embankments to keep water out, and in a natural state most of the province would be flooded in winter. Through a system of embankments and canals the whole province forms one large drainage system,

or "polder," from which sea water is kept out and from which rain water may be pumped. Within this large polder are numerous smaller ones, and within these smaller ones still. In this way water from smaller polders is pumped into channels of larger ones to be again pumped into the main drainage system of the whole province. The making of small polders is left in the hands of the farmers concerned, who join together in co-operative societies for this purpose, but as the size of the undertaking increases the assistance and control of the State becomes both desirable and necessary. In these days co-operative societies for making polders are effectively financed in Friesland by a co-operative bank in Leeuwarden, called the Zuivelbank, which exists specially to finance these and similar co-operative undertakings. The high price of land is sufficient to insure the financial success of most polder associations. The gradual change from waste marsh to grassland of excellent quality, as good herbage plants slowly colonise the drier ground, is one of the most marvellous sights in Holland, and can only be compared with the opposite process of irrigation in deserts. In recent years the windmill pumps of Holland have been largely displaced by more powerful electric ones which are far easier to control. It is a mistake to imagine that these pumps are feverishly working all the year round, for during the summer crop growth utilises a large part of the rain which falls, and during the winter when all stock is in the stalls the water-level is allowed to rise. It is in spring and autumn that the pumps are mainly employed, when by judicious use the grazing season can be extended to its maximum. In addition, in the larger polders full advantage is taken of the effect of strong winds in heaping up water in the direction in which they are blowing, and of the rise and fall of the tides.

From the description of polders given above it is evident that the water-table is never far away from the surface of the soil. In many cases the difference is only a matter of a foot or two, but in some parts of Friesland the difference is a little greater. It is not easy to account for the fact that about 40 per cent. of Holland is under permanent grass, but one of the main reasons is because the water-table is so near the surface of the soil that arable farming is very difficult. In a strip of land bordering the north coast of Friesland, running from Harlingen to Dokkum, the land surface is just a few feet higher than it is elsewhere in Friesland and nearly all arable land in the province is concentrated in this small area. Here about 44 per cent. of the land is under grass, while in all the remaining parts of the province little more than 5 per cent. is under the plough and many farmers have no other crop than grass. Typical dairy farming in Friesland is a system of keeping cows throughout the year as much as possible on grass, hay, and grass silage, while any other foods which are required must be purchased.

Friesland, as a whole, is a province of small holdings, farmed by tenant farmers. The following table gives the number of holdings

in each size group, and the percentage in each group owned by the men who manage them :—

Acres.	Holdings.	Owned by the farmer. %
1—12½	10,457	46·6
12½— 25	4,034	40·4
25— 50	3,100	38·3
50—125	4,004	25·8
125—250	195	22·6
Over 250	5	60·0

It will be seen that nearly half of the farms are below 12½ acres, and the number of farms which would be considered of a fair size in England is relatively small. The decrease in the percentage owned by the farmers themselves falls off in a striking manner as the average size of the farms increases. The percentage owned by farmers is considerably lower than in the neighbouring province of Groningen and still more so than in Denmark.

In a land so highly developed the question of tenancy agreements and compensation for improvements is of considerable importance. In this respect Friesland is in an inferior position to England, and at present little has been done through legislation to regulate tenancy agreements and the payment of compensation for tenants improvements, but unofficial attempts are now being made by the Farmers' Union of Friesland to safeguard tenants' interests. Farms usually let on lease for periods of about five years, ending at the beginning of May, and the incoming tenant usually has right of pre-entry to the grassland in March, and to any arable land in the previous November. The farmer has no safeguard against disturbance at the end of his lease, but in most cases satisfactory tenants have the first offer when renewals are being discussed. It will be seen that although in a less favourable position than English tenant farmers those in Friesland continue to do their utmost to maintain the soil in a high state of fertility, and at present they show few signs of real dissatisfaction with their present position with regard to tenancies.

Except for those on the belt of arable land near the coast all Friesian farms show an amazing similarity. Owing to the intricate system of ditches for drainage purposes the land is divided into very small portions, usually some three to five acres in size. If, as in many cases, the farm houses are collected into villages, these small parcels of land are at an inconvenient distance from the buildings ; but many farm houses are now arranged along road sides with narrow strips of land running out behind them for a considerable distance. A typical farm with which I am familiar has land running in a strip, not more than 100 yards wide, for a distance of about two miles. Under such conditions the cows are always milked in the fields during the summer grazing period.

The farm buildings are nearly all built on the same plan in which dwelling house and cowstall are under one roof. The standard of comfort of the dwelling houses is not so high as in Denmark, nor do the people appear to be in such easy circumstances. In the main barn all live stock is housed during the winter months and space has to be found for all the hay made in the summer, and any arable crops which may be grown. The cows are generally arranged along the outer walls of the barn with stores of hay in the middle. As a rule there are no mangers of any kind, the roof is very near the cow's head, and there is a drop of about two feet into the gutter behind. The idea of a very high step to keep cows clean has existed in Friesland for a very long time, but some of the older ones are uncomfortably high. A tradition of cleanliness which drives Dutch people to wash even the *outsides* of their houses makes them take considerable trouble to keep the cowstalls clean. In summer these stalls are scrupulously clean, with sanded floors. One farmer friend, for example, took his clogs off to show me over his empty cowstall, which had curtains hanging in the windows. In the winter, however, when the stalls are full of cows it is much more difficult to keep them clean, and many of the old ones are too dark, too low, and too badly ventilated, to be satisfactory from the standpoint of health; newer ones, of course, are much better in these respects.

The absence of arable crops makes straw for litter purposes almost unknown. Waste hay, unfit for feeding, is the only litter available, and as a whole the cows have no protection at all against the brick floor on which they lie. When stalls are not ideal in other respects brick floors can hardly be accused of doing harm to the cows, but sore hocks and knees are a common sight during the winter months. The manure produced in this period is all very fluid and collects in the gutter from which with a wooden scoop it can be easily pushed along into a huge tank at the end of the stall which is often big enough to hold three months' supply of liquid manure. Little is allowed to run to waste. A piece of string attached above and tied to the cow's tail is very serviceable in keeping the tail out of the gutter when the cow lies down.

In Friesland, on the grassland belts, the majority of farms are managed on much the same plan. Nearly all the cows are of the black and white Friesian breed and are kept to produce milk which goes to the creameries to be made into butter and cheese. Most of the cows calve down during the early spring and produce milk from grass during the summer. Of all cows in the Friesian Herd Book 75 per cent. calve between February 1st and April 30th, and the proportion is higher with ordinary cows because less trouble is taken to make young heifers calve in autumn for the first time. It is interesting to note that nearly all heifers calve for the first time when they are two years old, but a few of the best breeders allow them to run to two and a half to allow them to grow and develop.

Cows are retained in the herd until they are too old to be profitable and the herd is recruited as much as possible from home-bred calves. Hardly any fattening is done at all. Bull calves, if not required for breeding, are slaughtered when they are very young and until the recent prohibition many found their way as veal to England.

Unlike Danish farmers who have large supplies of skim milk at their disposal for feeding to pigs, Friesian farmers, owing to cheese-making and the condensation of skim milk, have to be content with small supplies of skim milk and a certain amount of whey. In addition, the small supply of arable crops absolutely prevents pig keeping on any extensive scale, and as a whole pigs are not important sources of income on Friesian farms, where nearly all returns come from the sale of liquid milk. The sale of calves, old cows and surplus stock is almost the only other source of income on these farms.

The winter feeding of the cows is based on hay and grass silage, both of which will be discussed again below. Purchases of foods are restricted mainly to meals, oil cakes, and sugar beet slices, while root crops are practically unknown. The highly developed system of milk recording induces farmers to take sufficient interest to ration their cows satisfactorily and use high class foods. It will be shown below that the hay and silage have a feeding value higher than is usual in these substances, and the feeding value of the oil cakes is on an average higher than in England. These oil cakes are very carefully prepared by the manufacturers, they contain less fibre, more oil, and more protein than similar ones in England and as a consequence their digestibility is higher. Many of these cakes are so friable that they are sold in cardboard boxes to protect them from damage, and they are much smaller than English ones. The most important cakes are linseed, ground nut, and soya bean cake, the last two containing nearly half their weight of protein in a very digestible form and competing in feeding value with fish meal itself. There is no doubt that such heavy yields of milk as are common in Friesland would be quite impossible without high quality foods.

The grazing season begins at the end of April or early May and continues until the end of October, and when cows are once turned out to grass they remain in the fields all the time until winter brings them home again. Milking during this period is invariably done in the fields, at about 5 a.m. and 5 p.m., and is the most important operation done on the farms. Milking in the open is pleasant enough on a bright summer morning, but dark rainy mornings in October explain why Dutch people wear far more clothing than we do! During this summer period the cows rarely eat any other food than grass, and only a few of the best breeders attempt to feed concentrates, for the grass is so nutritious that the cows will hardly look at anything else. Milking is necessarily done by hand, although in recent years one or two milking machines of well known brands have been employed with complete satisfaction.

The new system of grassland farming which began in Germany a year or two ago, and which is now being tried at several centres in England, is really based on methods which have been current in Holland for a very long time, and are now employed there on thousands of farms. On these farms in Holland the cows run loose in the pasture, but are all concentrated on one small area at a time for periods of a few days—about a week—and then moved on to the next. In this way the grass is eaten off at its most nutritious stage, when about six inches high, and the whole farm is worked over in rotation. Horses, growing stock and stores, can be made to follow behind in this rotation and help to clear up residues of uneven growth left by the cows. If the growth of grass is more than the cows can eat the excess is promptly cut at the same stage of growth for hay or silage. It will be seen that there is no division of fields into pasture and meadow, and one never sees bent grass stems running up to seed. The emerald green of the herbage is one of the most striking assets of Dutch scenery, and is one of the best evidences of well managed grassland.

It is no uncommon thing for a field to be cut three times in a year for hay. This means that the grass is much shorter than with us when it is cut, and the hay is more difficult to make, but when well made it has a very high feeding value. During spells of bad weather the grass is cut and made into silage in clump silos and covered over with soil. The making of this grass silage seems to be attended with remarkably little waste, and to my inexperienced eye the material obtained appears to be of very satisfactory quality, and it certainly meets with the approval of the best farmers in Friesland. Although thousands of tons of grass silage are made every year in Friesland only one experimental tower silo exists in the province and all of it is made in clamps or pits. This silage, made from grass at a very early stage, is also of interest in containing less fibre than is found in that made in other countries, and this point may help to explain the small wastage by allowing closer packing. The smell of this silage is not always what could be desired and is a characteristic feature of a Friesian farmer's life during the winter months!

It will be seen that grass is utilised in the same stage of development for grazing, making into hay, or making into silage. Chemical research on the feeding value of grass in such a stage has been carried out at various times in Denmark, Germany and Hungary. It has recently been subjected to a very thorough investigation at Cambridge. There is no doubt that such grass is remarkably rich in proteins and has a very low fibre content and a high digestibility. In feeding value it approximates to good quality oil cakes and is distinctly better than ordinary hay or silage. Friesian farmers have had therefore at their disposal high grade foods obtained from grassland for a very long time on which to base the feeding of their cows for the whole of the year.

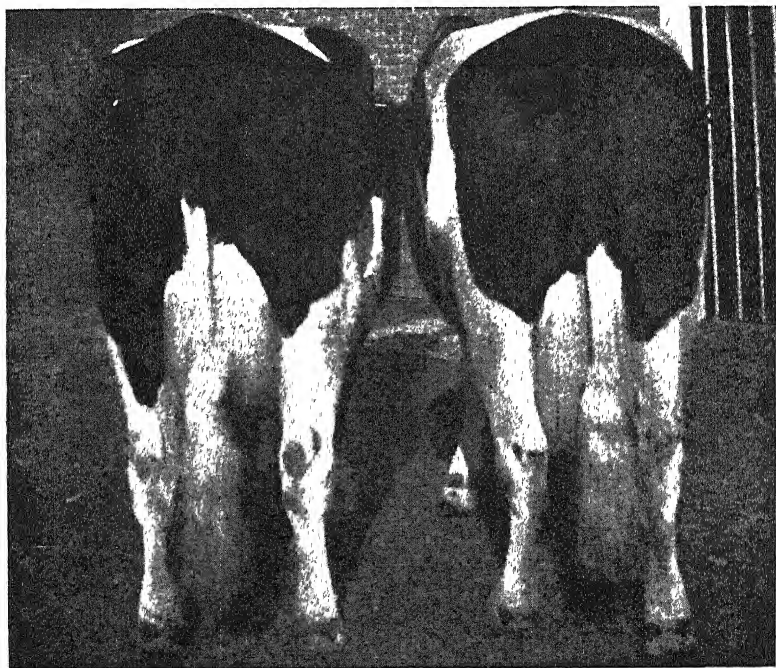
It is evident that a system of grassland treatment such as that

outlined above would be very exhausting to the soil unless manured on a generous scale. In Friesland, however, the proximity of the water-table to the surface of the soil, controlled by the pumping stations in summer, keeps the grass growing vigorously all through the summer. In addition, nearly all the liquid and solid excrements from the cows find their way on to the grass fields, usually after being made into composts with alluvial material obtained in cleaning out the innumerable ditches which drain the farms. The use of basic slag, superphosphate, and potash manures is very common and recently nitrogenous manures have been used as well. It is becoming common to dress pasture fields, which have been adequately manured with phosphates and potash, with nitrogen compounds in the spring to give the grass an early start, and again in June after the first crop of hay, at the rate of about one cwt. to the acre. In Germany, dressings of four cwt. per acre of sulphate of ammonia are being tried on the same system, and during the last two years trials in Friesland have been carried on by Mr. Wittveen, near Drachten. So far the results which Mr. Wittveen has obtained have been very satisfactory, and this intensive system of grassland management seems very likely to spread. It will be noticed that the main point of the present Dutch system of using grassland is in using grass for all purposes at the proper time, *i.e.*, about six inches high. For this purpose a mowing machine and a silo of some form or other are absolutely essential. Recent Danish experiments have been directed to obtaining a *uniform* growth of grass all through the year by the use of nitrogenous manures, but in Holland the grassmower eliminates this problem altogether.

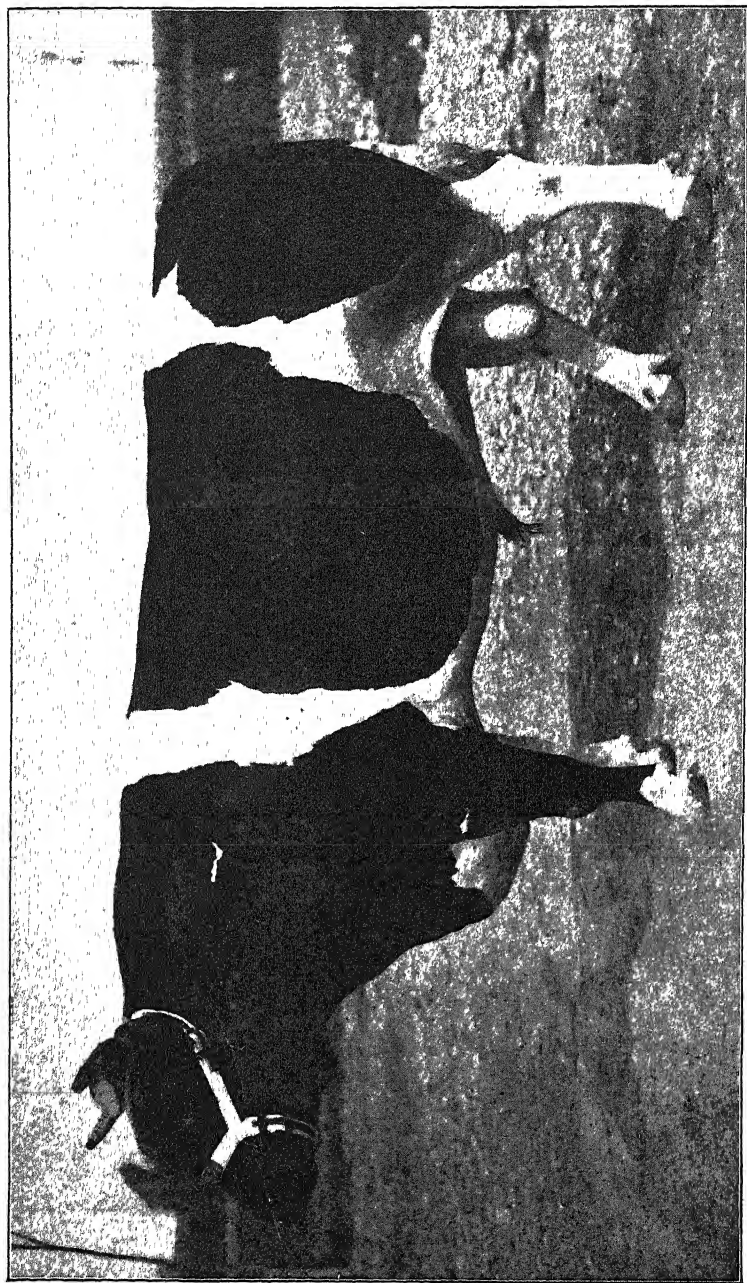
In my opinion this new system of grassland management promises to revolutionise our farming systems and bring the productivity of grassland, which usually is in a more fertile condition than any other, into line with that from land which is under the plough. The system is not yet beyond the experimental stage and must be employed with care, but even in its more reduced stage as practised by all ordinary farmers in Friesland it is worth very careful consideration. Ordinary grassland in Friesland has a stock-carrying capacity which is easily as good as the best pastures in England, and on an average the productivity of grassland in Holland is distinctly higher than with us.

Friesian Cattle.—According to the most recent census—that of 1921—Friesland contained 331,000 cattle of all kinds, of which slightly more than half were cows actually in milk, while the number of cattle being fattened only amounted to 4,568. These figures, taken together, give a very good idea of the main purpose of Friesian farming. The cows are nearly all typical Friesians, now so well known in England, and they are remarkably uniform in character, markings and size. Small differences occur between cows raised in different parts of the province and, as mentioned already, cows from the clay belt are considered the best, but such differences are very small and are disappearing fast under modern breeding conditions.

The origin of the particular breed of cattle now known as Friesians appears to be very obscure; for while cows of a general dairy type have existed in Northern Holland for a very long time they do not appear to have possessed the outward characteristics of the modern breed. Flood and disease have been responsible for many migrations of cattle, especially out of Groningen and neighbouring German provinces, while Shorthorns were imported at various times, but seem to have left behind no permanent trace of intercrossings. However obscure their origin may be there is not the slightest doubt that these Friesian cattle have been bred for a sufficiently long time to produce remarkable uniformity in general features, and their merits have been known long enough to make this type dominant over the greater part of Holland, Northern Germany and the Jutland peninsula of Denmark. These members of the breed which one finds in Friesland are most noteworthy for their immense yields of milk, and the evidence they show of very careful breeding, particularly with regard to the width and fineness of the hind quarters, and the remarkable width between the pin bones to form almost a perfect rectangle, or "vierkant," with the hips. This gives room for a very large udder and provides for the



F.R.S. Photo.] Dutch Breeders always like to see their cows from behind.



F.R.S. Photo] GERBENS 58 (F.R.S. 11012). Born March, 1919. Awarded 73 points on inspection. Declared "preferent" in 1925.

easy delivery of big calves. Dutch breeders always like to see cows from behind.

Modern Dutch breeders are very keen on vigour and constitution, and are not allowing waves of fashion to refine the breed to the point of undermining health, or to sacrifice utility for fancy points or markings. Constitution still shows itself in the width of the muzzle, the set of the neck, and the healthy development of bone; but one must not imagine that the result is an ugly, bony, milk machine, for the general appearance of the cows is remarkably pleasant, and shows that beauty and utility need not necessarily be kept separate.

Although Friesian cattle have been carefully bred for a considerable length of time, and although modern breeding methods in Friesland are as scientific as in any other part of the world very little use was made of herd book registrations until about 20 years ago. The first herd book for cows in Holland began at The Hague in 1875. In this book cows from all parts of the country could be entered and all types were eligible. Dissatisfaction with outside control and the knowledge that their province produced the best cattle stimulated Friesian breeders to begin a book of their own in 1879. At first little interest was taken in it and by 1900 the number of members was only 630, but following a general reorganisation fresh interest was aroused and membership increased from 2,329 in 1910, to 3,265 in 1915, and 3,533 in 1921; at the same time the number of cows entered in the herd book rose from 49 in 1895, to 829 in 1905, 12,479 in 1915, and 15,096 in 1923. At the present time about one cow in 12 of all cows in Friesland is entered in the book, and when registrations of young stock are included the proportion becomes one in eight of all cattle in the province.

Cows of breeds other than Friesian are very rare indeed in Friesland, and while a certain amount of impure blood remains the animals are all of the common dairy type. In this respect the province has an enormous advantage, in the first place because of the large percentage of cows already entered in the herd book, and secondly because non-pedigree breeders are continually improving the standard of their herds through purchase of pedigree bulls of recorded ancestry which cross well with ordinary commercial stock. As a consequence the difference between pedigree and non-pedigree animals is very small and will tend to diminish as time goes on. The province gains in uniformity in proportion as it loses in picturesque variety, and at any of the provincial shows the visitor is at once struck by the complete absence of variety and colour so characteristic of English show yards, and is compelled to concentrate on the relative merits of animals which are amazingly similar in all respects. This absence of competition from other breeds has allowed scientific breeding and selection to proceed unhindered to an extent which is only possible under such conditions.

The herd book is divided into two separate registers—the herd

book proper and the so-called "hulpboek." The herd book contains only entries of cattle of known ancestry, while the "hulpboek" was closed for bulls in 1922, but contains the names of non-pedigree cows which on inspection are found to be distinctly superior to the minimum standard accepted for pedigree stock. Calves descended from cows first entered in the "hulpboek" eventually find their way into the herd book proper if they are up to the accepted standard. The increased interest which has been taken in the herd book since 1900, and the closing of the "hulpboek" for bulls, has had a great influence in increasing the entries of pedigree cattle at the expense of the "hulpboek," but fresh blood is still coming in as non-pedigree cows in fairly large quantities. In no case is an animal allowed to be entered in either of the books unless on inspection it comes up to standard. No notice is taken of milk yield, but the following scales of points are used for cows and bulls:—

Cows.

Head (shape, eyes, nose and horns)	...	8
Neck, shoulders, chest	... ..	10
Back, ribs, flanks	... ..	8
Loins	... ..	8
Rump	... ..	12
Thighs	... ..	6
Tail	... ..	4
Legs	... ..	6
Udder, teats, milk indications	... ..	20
General appearance	... ..	18
TOTAL		100

BULLS.

Head (shape, eyes, nose)	... ..	9
Horns	... ..	6
Neck, chest, chine, shoulders	... ..	12
Back, ribs	... ..	10
Loins	... ..	8
Rump	... ..	10
Thighs	... ..	6
Tail	... ..	3
Legs, carriage	... ..	10
Milk indications, skin, hair	... ..	6
General appearance	... ..	20
TOTAL		100

Cows are not inspected until they are nearly three years old and have calved for the first time. Unless they gain 70 points they are disqualified, while non-pedigree cows must gain 75 points for first entry in the "hulpboek." Bulls are inspected twice, the first time at 13

months old, and again when 18 months old. The points awarded are retained and entered in the herd book and serve a very useful purpose in educating less experienced breeders up to the ideals of high class animals, and in assessing the value of a bull for breeding purposes. Besides ordinary registration records are kept of matings, calves produced, measurements of different parts of the body, prizes awarded to the animal and its descendants, and of all production figures supplied by milk recording societies.

There is at present no advanced register, but through the points awarded, and the production figures, it is easily possible under present conditions to sift out the very best from the mass of good animals. In addition, the Friesian Cattle Society has an excellent system of calling attention to those particular bulls which have had the greatest influence in improving the quality of their offspring. These bulls are called "preferent." To be declared "preferent" a bull must be at least five years old and must have 150 known descendants registered in the herd book. Careful comparisons are then made between the bull's daughters and their mothers in regard to general appearance, milk yield and butter fat percentage. If after such a comparison a bull is found to have had a distinctly beneficial effect in improving the breed he is duly declared "preferent," but the number so declared in any single year is very small. This system has had a considerable influence in calling attention to certain lines of Friesian bulls, particularly the world-famous Jan line—Jan, Nico, Wodan, Gerard, Wodan II, Roland II, Hatsumer Gerard, Wodan Jan, Albert III, Gerbens, Lord, Hans, and Tjerk Hiddes. This single line is now responsible for about 75 per cent. of all new entries in the herd book.

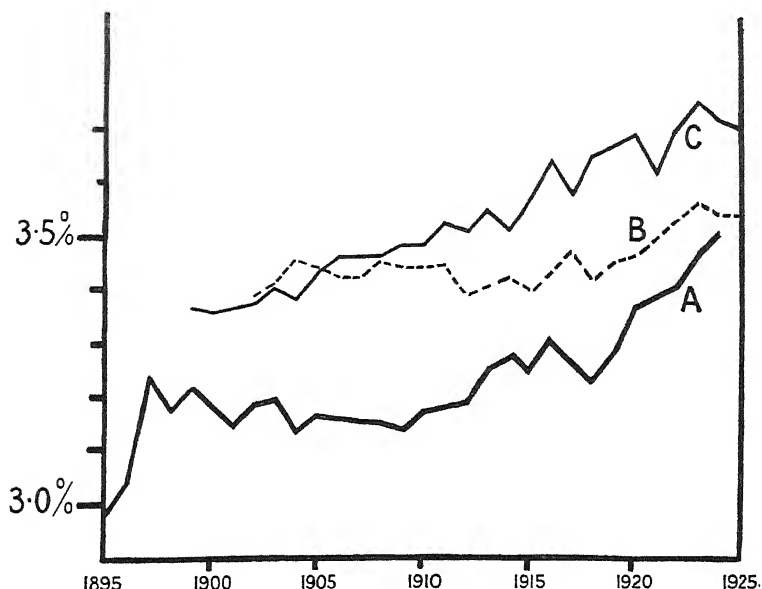
The "preferent" system mentioned above was initiated by the Provincial Committee for Cattle Breeding, which is an organisation distinct from the Herd Book Society and which receives a small subsidy from the Central Government; but the two organisations work very closely together. This provincial committee also does very useful service in holding local inspections of bulls in the province in spring. At these inspections bulls are judged on a scale different from the one given above in which points are also awarded to an animal for its ancestry. If a bull has a "preferent" bull as father it gains six points, if as grandfather three points, and so on. At these district inspections medals are awarded, but no money prizes. The results with the points awarded are published widely in the daily papers. Each year, in addition, the Friesian Cattle Society holds central inspections in Leeuwarden; one is held in early May for bulls, and another in autumn for bulls, cows and heifers. At these inspections breeders are discouraged from sending animals in a very fat condition. The results of these inspections show how the centres of greatest interest at present in Friesland are Berlikum, Winsum, Franeker, and Beetsterzwaag, while other centres, once famous, are now falling behind.

The great use which is made of pedigree records and the keen

interest taken even by ordinary farmers in line breeding renders it easy to apply exact data in further improvement. In this respect too much importance cannot be attached to the magnificently developed system of milk recording which is now found in Friesland. In that province alone there are 114 milk recording societies, with 117,800 cows on their books, or about 75 per cent. of all cows actually in milk, and as many as the total number of cows and heifers in the whole of Wiltshire. These milk recording societies are all small in membership, they include herds varying in size from one to 50 cows, and they are frequently associated with the local creamery. This point is of considerable importance for the recorder can cycle to any farm for any milking time and return to the creamery to carry out butter fat and other tests along with the routine tests of the creamery. Around some creameries nearly every single cow is now recorded. The recording is done in nearly all cases by the recorder himself, and takes place usually at intervals of three weeks. At the end of the year the total yield, the average fat percentage, and the yield of butter are estimated. The results obtained are of considerable interest. The average yield of *all* cows in Friesland is estimated by the Dutch Government from statistics supplied by creameries to be between 750 and 800 gallons, while that of pedigree cows in the Friesian Herd Book in 1924 was almost exactly 1,000 gallons. Beside these English figures do not appear very impressive. The average yield of the pedigree cows is rather higher than it would be if all heifers were entered in the herd book as soon as they come in milk, but because the majority of Dutch cows calve in early spring these yields are lower than if they calved at almost any other time in the year, and very few cows have lactations which run for more than a year.

In spite of the widely used system of milk recording the yield of pedigree Friesian cows, as measured by quantity alone, has changed very little in the last 20 years. This may be due perhaps to changes in the system of recording, but at any rate the average figures show oscillations but little progressive change. There is evidence, however, that the yields of ordinary cows have been slowly rising in recent years. On the other hand the *quality* of the milk has improved in a very striking manner since milk recording first began. This improvement in quality has been stimulated by the system of analysing all samples taken by the milk recorder, and to a still greater extent in recent years by the system under which the creameries pay for milk according to its fat content. Every farmer is alive to this question, which is of great importance with the Friesian breed of cattle, and public attention has been called to it through an estimate in a recent Government report that an increase of .1 per cent. in the average fat content of the milk of all Dutch cows would bring in an additional revenue of over half a million pounds sterling in a year. The graph on the opposite page shows how the fat percentage of milk from cows entered in the Friesian Herd Book has risen steadily since records were first kept. This gradual improvement is not confined to pedigree cows,

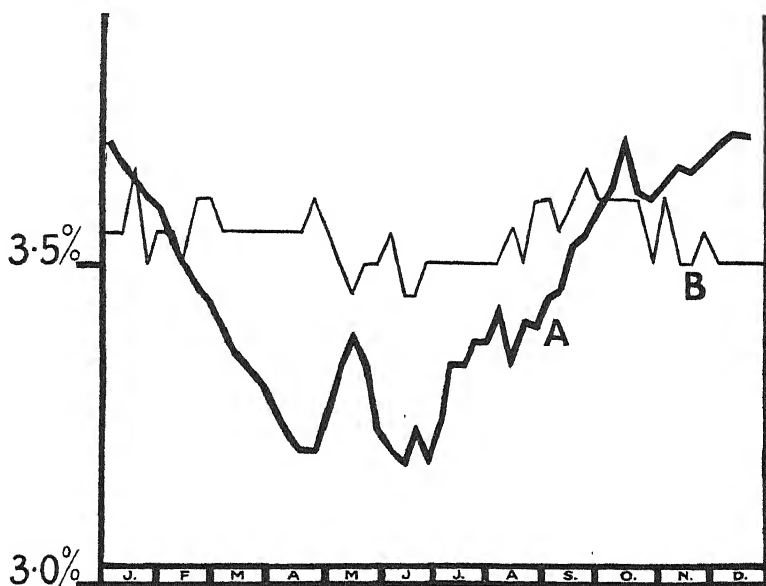
but is true of all cows in Friesland and other parts of Holland, and for comparison the graphs also show that the movement is going on in Denmark and Sweden at much the same rate. The milk from ordinary commercial cows in Friesland is not so rich in fat as that from pedigree ones, but reports from creameries show that it is improving steadily as well. In a Government report the fat percentage of milk from all



GRAPHS, showing the improvement in the average fat percentage of milk.
 A—Pedigree Friesians in Friesland. B—Mixed herds in Östergötland, Sweden.
 C—Mixed herds in Funen, Denmark.

cows in Friesland was estimated at 3.10 per cent. in 1910, and 3.26 per cent. in 1922, while the Friesland Bond of Creameries estimated it at 3.38 per cent. in 1925. By contrast the mothers of all bulls at the local inspection at Berlikum in 1926 averaged 3.84 per cent. This improvement in the quality of milk, so striking in recent years, is doing much to remove the stigma which has always attached to cows of the Friesian breed. Of course many cows, and some entire herds, are still found which average below 3.0 per cent., but reports from creameries and milk recording societies show how rapidly the number of such cows is dwindling. On the other hand cows with 5 per cent. of butter fat are met with here and there, and although their number is at present small they point the way to future possibilities, and they may represent a limit under present breeding conditions. Since, however, it is now known that some foods reduce the fat percentage of milk there is now a prospect that others may be found which *increase* the percentage to a similar extent, as has been claimed in recent

experiments in Denmark and America. The reports of creameries also show a striking change in the quality of all the milk they handle at different times of the year. This variation is shown in the graph on this page, obtained from milk delivered to Giekerk creamery in 1924-25. Other creameries show changes which are strikingly similar, and variations from year to year are very small. As one would expect, the milk is richest in winter and poorest in April and June, but the sharp rise at the end of April is very difficult to explain, coinciding as it does with the beginning of the grazing season, as is also the sharp fall soon afterwards. This rise and fall towards the end of April is not always so great as in the graph shown but it appears to be a constant feature under Friesian conditions. By contrast the other line shows similar results from Randlev creamery in Denmark and shows amazing constancy throughout the year. My information from other Danish creameries is still very small, but all indications point to



AVERAGE FAT PERCENTAGE IN MILK THROUGHOUT THE YEAR.

A—All milk delivered to Giekerk Creamery Friesland, 1924-5.

B—All milk delivered to Randlev Creamery, Denmark, 1924-5.

a general agreement with the graph shown. It must be remembered that these graphs only show the variations in the average quality of all the mixed milk, both morning and evening, delivered to the creamery. They take no account of the variations of individual cows or of individual herds which from day to day may be considerably greater than the whole range of the graph. They do, however, demonstrate the importance of the problem of the fat content of milk and

suggest the need for a thorough research into this very complicated subject.

In Friesland as a whole no attempt is made to force cows into giving excessive yields of milk and no world's records have been created. At the time of writing the record yield in Holland was produced by the cow Ymkje VII, belonging to Messrs. Schaap, of Deersum, which recently gave 28,960 pounds of milk, with 3.78 per cent. of fat in 365 days. While two-thousand-gallon cows are scarce the high average yield of all cows in the province is a wonderful tribute to the ordinary farmer's skill in breeding and feeding. There is nothing in the rearing of these cows which is particularly remarkable; the calves receive just ordinary foods, the yearlings feed mainly on hay and grass, and the heifers come into the herd as nearly as possible at two years old. By contrast, of course, very few points are lost through slovenliness, or lack of practical attention to the everyday needs of growing animals.

Other stock on Friesian farms need no lengthy description. The Friesian horse is a light, leggy animal, with a black coat; and has only light work to do where plough land is scarce and hills completely absent. There are two breeds of long-wool sheep—the Texel and the Lincoln—both very much alike. The ewes are often milked for household purposes, and many are kept by the labouring classes. The most remarkable thing about them is that many of the lambs are weaned at six weeks old so that their mothers may be milked, and these lambs grow better than one would expect. The common breed of pig is descended from the "Land race" or local breed found all over northern Europe. Dutch breeders draw mainly on Germany for fresh breeding stock, but the pigs are not so well developed as in Denmark. Poultry account for an almost negligible part of a Friesian farmer's income and many farms are without any at all.

General Organisation.—Upon the base of an intensive system of dairy farming very efficient organisations have grown up in the last 50 years to supply the farmer in all his various needs. These organisations are nearly all co-operative either in origin or in policy, and are remarkable proof that the idea that tenancy and co-operation cannot go together is absolutely false. The work of the Friesian Cattle Society has already been described, as has also the excellent system of milk recording. The creameries, however, deserve a little more attention. The first co-operative creamery was begun in the village of Warga in 1886, very shortly after similar beginnings in Denmark. Since that time the movement for co-operative creameries has developed in a most striking manner, and now every farmer in Friesland is within range of one, and the making of butter and cheese at home has become a legend. This change has relieved the farmer's wife of very laborious work and by comparison she now seems to lead an easy and inactive life, wholly confined to the house, although on the smaller farms some women help to milk.

There are now in Friesland 89 co-operative and 30 private

creameries in working order. Nearly all of these creameries make both butter and cheese. The co-operative ones are owned by the farmer members and all appear to be in a very healthy financial position, and to be well managed. New extensions are constantly taking place and technical improvements are encouraged through the Provincial Bond of Creameries, while financially they are controlled and assisted by the Zuivelbank in Leeuwarden. These creameries are in general newer than similar Danish ones, they are larger, and appear to be better equipped, but whether this is due to their recent origin or better management is difficult to decide. In contrast also with Denmark they nearly all produce cheese as well as butter in roughly equal amounts. The produce is of good quality, but most of it goes to Germany. The most important cheeses in point of quantity are Edammers, Goudas, Leyden, Cheshire and Cheddar, but fancy and lunch cheeses are being made in increasing quantities. A good deal of these cheeses contains less fat than would be obtained by using pure new milk and the following grades are on the market:—"full fat," "40 per cent.," "30 per cent.," and "20 per cent." Large quantities of these lower grades of cheese are consumed in Holland and Germany, but English buyers are only offered the higher grades. All milk for making butter is now pasteurised in the usual manner, but for making cheese it is still an open question whether to pasteurise the milk before, or the whey after, making cheese. In any case without legal compulsion creameries and farmers are fully aware of the advantages of pasteurisation in the fight against tuberculosis in cattle, as will appear below.

A few of the larger creameries are now producing condensed milk, which is generally made from skim milk. Most creameries, however, send their surpluses to a factory in Leeuwarden—the Co-operative Condense Factory—which does nothing else than condense milk. This factory is one of the most modern and efficient ones I have seen inside, it is very well managed and financially sound. It makes its own tins and has its own selling brands of condensed milk, and a scientific control to look for defects at any stage of manufacture. It stands as an excellent proof that co-operation in Dutch agriculture does not rest on sloppy sentiment, but on sound business and economic principles.

Farmers are invariably paid for their milk on its fat content as shown by the Gerber test. In this respect and in the publication of full information about their finance and production the creameries in Friesland are ahead of those in Denmark. On the other hand the Danes have advanced further by introducing systems of payment for milk based in part on its keeping qualities as shown by the "reductase" test, but the Friesian creameries are also fully alive to this question and so far have not adopted this test because on investigation by the Health Service for Stock it appears only to give a rough idea of the bacterial cleanliness of milk. Efforts are, however,

being made in Friesland to devise a reliable test on which a system of payment may be based which will encourage farmers to produce milk in a high state of purity, and the Dutchman's love of cleanliness, which amounts almost to a religion, will ensure a ready response on the part of the farmers to any further progress in this direction.

Holland itself is a fairly large consumer of its own dairy produce, although rural people now eat as much margarine as butter. For export purposes, and to an increasing extent for inland sale, the creameries are organised into co-operative sale societies. The Co-operative Export Association in Leeuwarden deals with the production of its 40 creamery members. It also exercises useful control over the policy and equipment of its creameries, and carries out tests to maintain and improve the quality of the produce it handles. There are also separate associations in Leeuwarden for the sale of butter and cheese.

Nearly all creameries in Friesland are members of the Provincial Bond of Creameries, which is a member of the Federated Bond of Creameries for the whole of Holland. This Bond has nothing to do with the sale of produce but it does magnificent work along the following lines :—It is officially recognised by the Dutch Government as the leading representative of all agricultural questions dealing with dairy produce. It assists in the creation of new co-operative creameries, in erecting the necessary buildings, and in enlarging existing ones. It encourages uniformity in finance and regularly inspects the financial condition of those creameries which belong to it, suggesting alterations and improvements. It inspects and tests all kinds of apparatus and materials required by its members for making dairy produce. It organises courses and conducts examinations in butter making, cheese making, and dairy management. It holds periodic inspections of the butter and cheese made by its members and encourages further improvement through competitions and diplomas. The results of these competitions show a gradual improvement in quality ever since the system begun. It is now investigating the water supply of very many creameries, for this is a serious problem in such a low-lying country. The headquarters of the Federated Bond are at the Hague; the office at Utrecht is now capable of planning and erecting entire creameries, and is engaged in big extensions to the existing ones; and the buying department at Arnhem supplies all kinds of requisites to the different creameries. This organisation of co-operative creameries in Holland is as complete and efficient as any other in the whole world.

One of the most striking movements which owes its origin to the work of the Federated Bond of Creameries is the Health Service for Stock. Beginning as one small association of farmers in 1919 there are now in Friesland alone over 20 of these associations whose object is by mutual aid to improve the general health of all farm stock. This work is entirely distinct from that of the State, which is mainly

concerned with notification of disease, legal restrictions, and slaughter of infectious animals. These health associations usually centre round a creamery, the members bind themselves to do all in their power to improve the health of their stock and pay their own expenses. The line of attack lies in improved and more sanitary buildings, pasteurisation of all skim milk and whey brought back from the creameries, notification, isolation, and, in case of need, slaughter of infected animals. The most serious diseases dealt with are foot and mouth disease, tuberculosis, contagious abortion and sterility. So far all efforts against foot and mouth disease have proved unavailing, and the ravages of this pest on the scale of its prevalence in recent years has to be seen to be realised. On a recent visit nearly every second farm seemed to exhibit the usual warning sign, and every farmer expects the disease once a year as a matter of course. The toll in loss of condition, loss of milk, loss of quarters from the udder, and through the death of the weaker animals is very heavy indeed. The general apathetic attitude of the farmers towards this disease is well illustrated by a friend and good farmer who opened a diseased cow's mouth to show me her swollen tongue and then cycled back to his son's uninfected farm without taking any precautions at all. This attitude is, of course, due to the fact that up to the present all attempts to combat this disease have proved equally useless.

By contrast, the work done by these health associations in fighting other diseases can only be described as heroic, and the annual reports they issue make very impressive reading. Relying mainly on isolation of young stock before it becomes infected, on pasteurisation of creamery by-products, and by using the eye test, these associations have made very considerable progress in the fight against tuberculosis. During last year 108 herds in Friesland alone were declared free from tuberculosis, and around many creameries the proportion of reactors among the cows has fallen to 10 per cent. In 1925 the combined associations delivered enough tuberculin to test 70,000 cattle. Microscopic tests on body tissues were also carried out, and a working agreement has been entered into with the local butchers to check the efficacy of the various tests for tubercle bacilli. To an outsider the methods adopted appear rather amateur, but carcass tests demonstrate conclusively that very considerable progress has been made even within the last three years. At present animals infected with tuberculosis are often sold and so spread the disease elsewhere; and cases are on record where one single reactor has infected a whole herd within a very short time. In 1925 these associations also distributed 170 litres of abortion culture, and tested 1,100 samples of blood for abortion bacillus. Injections of many cows against abortion are claimed to have had a beneficial effect, but so far the success is not complete. Tests carried out on bulls show that they may pass through phases of complete sterility and yet recover and become as successful in getting calves as any others. A serious effort is also being made by bacterial counts to produce milk up to the standard of purity represented by Grade A

(T.T.), although no grading system at present exists in Friesland with regard to milk for consumption. In addition, this Health Service for Stock has initiated a system of granting certificates of health for animals exported abroad, and is already carrying out preliminary inoculation work on such animals against diseases which they will meet on their arrival. It will be seen that these health associations, which still are quite voluntary, have already done an enormous amount of good in improving the general health of stock, and the future before them is very promising.

In Leeuwarden there is a co-operative egg collecting association which first began in 1902. It collects, grades, packs, and sells eggs, and all kinds of poultry, and it supplies members with foods and appliances. Owing to rapid expansion it has already been compelled to move into larger premises on two occasions, and it now shows signs of continued prosperity and serious overcrowding in its present quarters.

In addition to small private slaughterhouses there is a co-operative bacon factory at Akkrum which was started in 1916. This factory handles pigs for both pork and bacon, and to a smaller extent kills young calves and cattle. It attempts to maintain uniform production by fairly extensive buying in the open market. Working as a pioneer this factory has not escaped the usual difficulties of delivery contracts, of finding good markets for its products, and of amateur management and finance. Like English factories it has been handicapped through the lack of uniformity in the pigs sent by its members and through being compelled to pay full market prices for its pigs and shoulder all risks of market fluctuations. In recent years, after reorganisation, it has made steady progress, it is paying off gradually its loan capital and building up reserves, and although its present state is still not too secure it seems to be winning through and mastering its difficulties one by one. The recent embargo on Dutch pork has enhanced its value to the Friesian farmers and will assist it financially by compelling them to give it more support.

As further examples of co-operative effort in Friesland one must mention the supply association for cakes and meals at Leeuwarden, associations for the sale of market garden produce and seed potatoes, and co-operative insurance societies. By contrast, the only sugar beet factory in Friesland and the potato starch factory are both in private hands.

By far the most widely spread organisation in Friesland is the Friesland Farmers' Union. When it is realised that it is only a provincial association covering an area not larger than an English county the list of its activities is very impressive. Founded as early as 1852 it now has a strong membership. It has published for many years a weekly agricultural paper called the "*Friesche Landbouwblad*," which is an excellent production, and from which a good deal of the information in these pages has been obtained. It stimulates

discussions on farming topics and publishes a summary of conclusions. It is busy investigating the cultivation of flax, water supply and crop growth, polder formation, and the making of grass silage, for which purpose it has an experimental silo. It has a good library of agricultural books open to its members. It organises numerous winter courses of lectures on all aspects of farming. It has a special department to deal with questions of tenancy, another for farm planning and machinery, and another to deal with stock rations. It has an expert for plant breeding who has recently produced the new potato variety called Alpha, which shows considerable promise. It runs an experimental dairy farm and another at Engelum specially for plant breeding. Through its assistance an association for keeping farm accounts has been started which now exists as a separate institution and was looking after the accounts of 709 farms in Friesland in 1926. It has a special expert to keep in touch with economic changes in countries abroad, to introduce prospective customers and to organise excursions. It is the co-ordinating system which knits together into one complete whole all other agricultural organisations in the whole province. In conjunction with the State and the Bond of Creameries it carries out tests to see that the dairy produce for export is unadulterated and up to the necessary standard. The Rijksmärke which is affixed to produce which passes the test is now well known to the buying public and is worthy of every confidence.

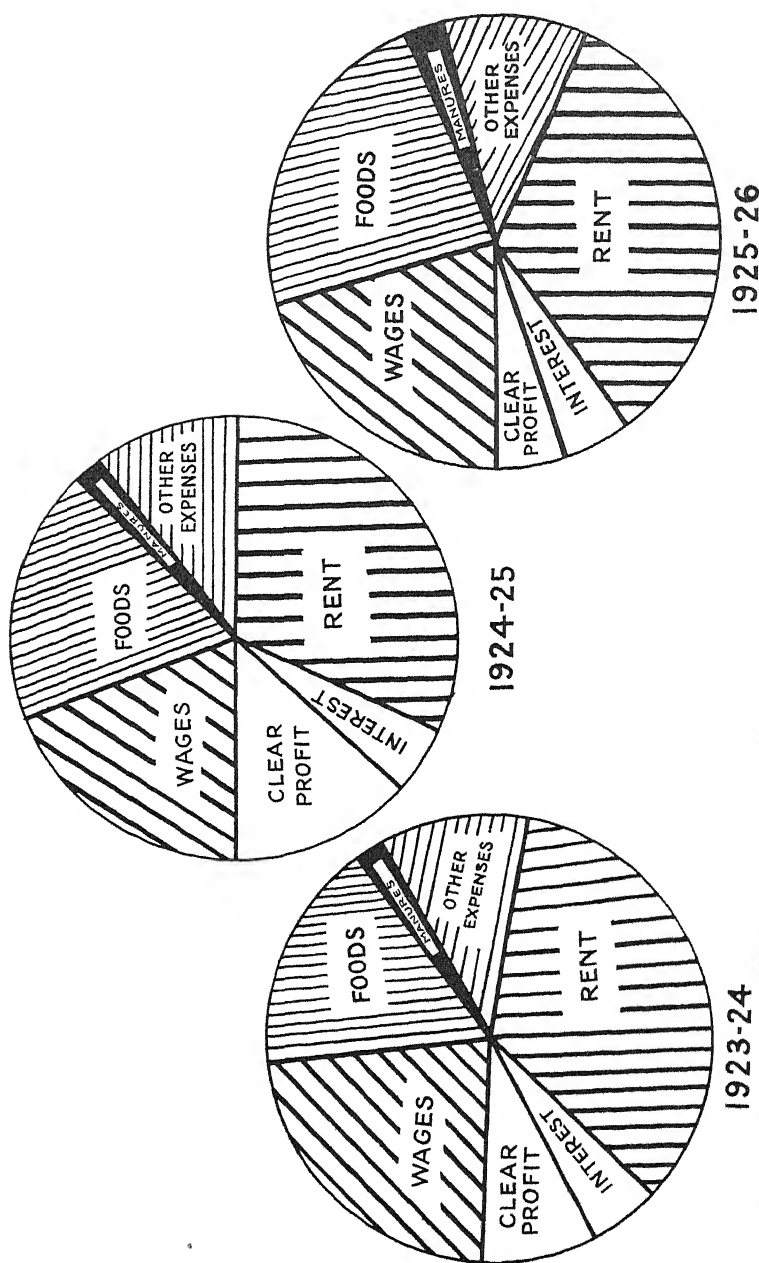
On the financial side there are numerous co-operative undertakings to provide funds for agricultural objects. The Zuivelbank in Leeuwarden, which was began in 1912, has already been mentioned. In addition to carrying on the work of an ordinary savings bank it specially exists to finance creameries, polder associations, and other co-operative societies connected with agriculture. Cheap and abundant credit is thus available for associations from an organisation which specialises in this type of work, and which can estimate risk more accurately than a private bank. For farmers and rural people as a whole Friesland is covered with a network of co-operative banks on the Raiffeisen plan, which take the place of ordinary banks. In Friesland alone there are now 103 of these banks associated with the Central Bank at Utrecht, and six associated with the bank at Eindhoven. These central banks serve an excellent purpose in acting as bankers to the local banks, in inspecting their books at frequent intervals, in regulating policies, and avoiding loss. The local banks accept deposits and make short term loans to rural people for the purchase of stock, implements, and other working capital. Managed as they are by farmers who live in the same village as the people who require credit risk is reduced to a minimum and the rate of interest is not higher than that of Government securities. A compulsory registration system enables private people to supply nearly all long term credit, but, if necessary, a special branch of the Eindhoven bank will make similar advances under an excellent system in which a sinking fund is included, where the rate of interest on any one loan

never alters, and where the loan cannot be called in before the time fixed in the agreement. This system of co-operative credit in Holland is of recent growth, it is now almost perfect in its efficiency, and it compares very favourably with any other credit system in other countries.

Conclusion.—The final question in any economic system is the position and outlook of the people themselves. When reviewing the resources which Friesian farmers have at their disposal one is deeply impressed by the efforts which have been made to extend the area of cultivated land, by the energy and skill shown in the management of grassland and the stock which feeds upon it, and by the efficiency of the marketing and supply systems which have grown up to take full advantage of recent economic changes in world supply and demand. The credit system available for these farmers could not easily be improved, and they are controlled by a Government which at least is sympathetic.

Conditions such as outlined above should open out a way to prosperity and ease, yet in spite of all these signs of progress of which full advantage is being taken the present condition of farmers in Friesland and the whole of Holland is not very reassuring and gives cause for serious thought. Their present position is no fault of the farmers who are doing their best to keep abreast with modern changes but it is due partly to the general depression in agriculture which affects most of the civilised world at the present time, and in part it arises from domestic troubles within the country itself. Of external factors the reduction in purchasing power as a result of the war and subsequent currency troubles has reduced the foreign demand for Dutch farm produce. In particular the selfish tariff policy of Germany is having a serious influence on Dutch farmers who gain nothing by corresponding duties. The recent embargo in England on fresh meat has caused a reduction in profits which is probably less in Friesland than further south, the competition in dairy produce from the colonies becomes keener and keener, and the activities of the Empire Marketing Board, and the recent Imperial Conference, are viewed with considerable misgiving.

Of troubles peculiar to Holland itself the most serious are the marked increase in population and the heavy expense of keeping the sea continually at bay. As pointed out above over population is leading to feverish activity in land reclamation, but it also causes severe competition for employment and for holdings to farm, with its corresponding effects upon wages and the price of land. The high price of land is a serious obstacle to new beginners and a heavy tax on gross profits. It is not easy to find out the real wages of ordinary farm workers owing to various allowances in lieu of money, but the total wage for a full-grown man seems to be about 35 shillings a week at the present time. As it stands this wage is more than many English



DIAGRAMS, showing the division of gross income on costed farms in the clay belt of Friesland. Interest is interest on working capital which, together with the clear profit, represents the tenant farmer's share. From this interest on any borrowed capital must be deducted.

labourers earn, but in Friesland the men work nearly 12 hours a day, beginning about 5 a.m. and not ceasing until 7 p.m., except for short mealtime breaks. Sunday too is included, and is nearly as busy as any of the other days during the winter months.

The farmers, for their part, are mainly small holders employing only one or two workmen. Their main source of income is from liquid milk delivered to creameries, but since this is made into butter and cheese the price varies between 8d. and 13d. a gallon, and the bulk is delivered during the summer months when its quality is lowest and the price not above 10d. a gallon. Compared with milk other sources of income are relatively unimportant, and in any case leave but small margins after expenses have been met.

During the last few years reliable figures have been available of the agricultural situation through farm book-keeping associations whose results are now published by the Dutch Government. The diagrams on the opposite page have been prepared from the average results of several farms in the best farming district of Friesland. Owing to the small size of the farms the wages bill is comparatively low, but by contrast the large fraction of all income taken by fixed capital is very striking. The whole structure of finance on these farms is top-heavy and in proportion to the risks he bears and the efforts he makes the farmer's profits are precariously low. House rent is not included in the accounts, but if it is allowed to the farmer as payment for the extra trouble he takes as manager the figures of 1923 show that he would have been just as well off as an ordinary labourer with a similar amount of capital invested in trustee stock, in 1924 he made on an average about £80 more than this, but in 1925 he would have been £35 better off as a workman with the same capital. These results are, however, for men managing farms averaging 75 acres in size and all evidence shows that as a whole farmers who keep books are more prosperous than the average, not so much because of the accounts, but because they are wider awake and more progressive. On ordinary farms, therefore, the farmers cannot be in any materially better position than the men who work for them, and their capital brings in little extra return beyond that of social independence, a greater stake in life, and rather better housing. This is certainly true of those men who are managing the smaller type of holdings, because agricultural conditions in Friesland admit of little advantage on smaller farms through more intensive methods and greater gross output. These results also show how absurd it is to imagine that low wages and long hours necessarily mean severe competition, since other elements enter into production costs as the diagrams show.

In Dutch agricultural circles very many opinions have been expressed which favour a general reduction in rents since it is obvious that they represent a fraction of the gross profits which might either be reduced or diverted to the farmer. It is, however, equally obvious that such reductions in rent would seriously affect the income of

relatively leisured people and drive them into active employment, and would interfere with reclamation or even the finance of those improvements which are necessary for maintaining ordinary farms in a productive state. The system of farming holds out little prospect of great reductions in working costs through mechanical appliances, and further progress in increased fertility and output seems likely to cost nearly as much as it will return. Many people in Holland now favour some form of political assistance through protective tariffs, but the economic position of the country is such that measures like these would probably do more harm than good. The only ray of hope appears to lie in higher prices for dairy produce, but the present world position offers little immediate prospect of any marked advance in the prices of butter and cheese, and developments in the Southern Hemisphere will limit any upward movement in this direction. While, therefore, British dairy farmers may regard these in Friesland as their rivals they can only have respect for their industry and farming technique, and a good deal of sympathy for their present economic condition.

VARIATION IN THE COMPOSITION OF MILK AND ITS CONTROL BY THE DAIRY FARMER.

By HAROLD T. CRANFIELD.

IN the production of milk three main factors are involved, viz., yield, cleanliness and quality. The first factor named is being dealt with by milk recording and breed societies, whilst the second is forming the subject of numerous "clean milk" competitions and much propaganda. Quality of milk, however, appears to have suffered some neglect in recent years, particularly with regard to the non-fatty solids, and there appears to be a strong case for reviewing our present knowledge on this all important subject.

To the majority of milk producers, quality is synonymous with fat percentage, and one frequently hears of milk being judged solely by its capacity to produce a thick layer of cream on standing. One must not lose sight of the fact that the solids other than fat in milk are present to the extent of $2\frac{1}{2}$ times the amount of fat, and in feeding value exceed the fat by 10—20 per cent. Whether milk is utilised for cheesemaking or sold for liquid consumption, the non-fatty solids content should receive due consideration.

Milk, like all natural products, is very variable in composition, but since the bulk of it, in this country, is sold in the raw state and, moreover, is not graded according to composition, it should be the aim of the dairy farmer to produce an article of fair average composition. Now the question arises, how far is this ideal within the control of the milk producer?

Recently the writer has had this question under examination, and as a result of three year's research, much interesting and useful information has been gained, which indicates that variation in the composition of milk is an exceedingly complex subject and one concerning which comparatively little is known at present. Numerous factors are involved, many of which can be controlled by the dairy farmer if he so desires.

It is well known that the composition of the milk of individual cows varies greatly. Reference to the records of competitions held each year at the various agricultural shows in this country, and to Dr. Tocher's recent memoir on the Composition of Scottish Milk (1) will confirm this statement, but less is known concerning variation in the composition of the mixed milk of herds. During 1925-26 the writer investigated the composition of the milk of 15 herds situated

in various parts of the country, the number of cows in these herds varying from 5 to 170. In all, 732 samples were analysed. The analytical data together with herd and farm observations have been carefully analysed and important points elucidated.

EXTENT OF VARIATION IN COMPOSITION.

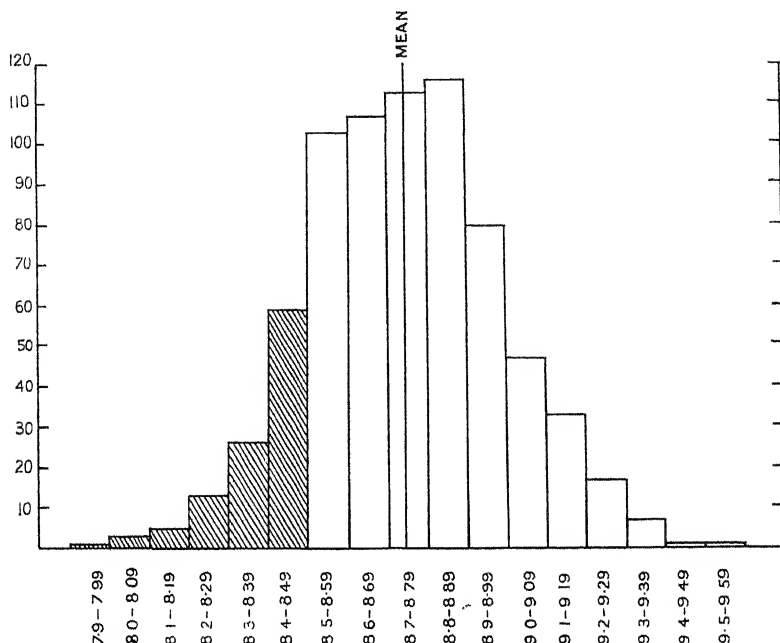
(a) *Fat*.—The highest percentage of fat recorded was 5·8, and the lowest 2·2. Taking the herds individually the greatest variation was shown by a herd of 60 shorthorns. Forty-four samples from this herd gave fat varying between 2·2 per cent. and 5·3 per cent. Two herds of 18 and 21 shorthorns respectively, situated on adjacent farms and under the same ownership, showed the least variation, the fat content in the case of one varying between 3·15 per cent. and 4·3 per cent., and in the case of the second herd between 3·0 per cent. and 4·2 per cent., 30 and 28 samples respectively being received. In considering fat percentage from the legal aspect, 8 per cent. of the total number of samples were below 3 per cent.

(b) *Solids not fat*.—This constituent varied between 7·99 per cent. and 9·51 per cent. One herd of 5—8 crossbreds showed a variation of 8·07 per cent. to 9·42 per cent. in 98 samples received, whilst 28 samples from a herd of 18 shorthorns varied between 8·51 per cent. and 8·95 per cent. only. One herd (30 cows) was periodically sampled for two years prior to 1925, and during this period a percentage as low as 7·23 was recorded. This is the lowest percentage of solids not fat in mixed milk which has been observed by the writer. A considerable number of the 732 samples were below the presumptive limit of 8·5 per cent., viz., 14 per cent. This is a significant figure and one is rather uneasy as to whether such a relatively high percentage would obtain or not if the milk from a large number of herds was systematically analysed. In the writer's opinion there is little doubt that a very large number of herds in this country, and not necessarily small herds, do produce milk below 8·5 per cent. on certain occasions, and, although the average solids not fat content of the milk may be high, yet there is the fear of a deficient sample, like the Sword of Damocles, hanging eternally over the cowsheds of many of our dairy farms. It is time this fact was realised and measures taken to either eliminate this possibility by careful control of the contributing factors, or, by bulking the milk of a large number of cows, prevent such a contingency arising.

In the past too great stress has been laid on average figures, in fact the presumptive limits of 3 per cent. fat and 8·5 per cent. solids not fat were decided upon after consideration of average composition figures. One should really ascertain the *extent of variation from the average*, and this is a point which the writer wishes to emphasize in this paper. In diagram I is given a graphical illustration of this point.

DIAGRAM I.

DIAGRAM SHOWING THE FREQUENCY DISTRIBUTION OF THE PERCENTAGES OF SOLIDS NOT FAT IN 732 SAMPLES OF MIXED MILK FROM 15 HERDS.



Fat percentages show a similar variation to the above, but in the case of this constituent of milk the percentage of deficient samples was found to be less.

CAUSES OF VARIATION IN COMPOSITION.

(a) **Fat.**—The following factors appear to influence the fat content of milk :—

Breed.	Individuality.
Disease.	Climatic variation.
Lactation.	Milking (first <i>v.</i> last drawn).
Seasonal variation.	Yield.
Periodicity of milking.	Frequency of milking.
Feeding.	General management.

Breed.—The influence of breed is well known, and need not be discussed here.

Individuality.—This factor is a potent one, and operates to a greater extent in small than in large herds, although cases have been met with where herds of considerable size have contained an appreciable

number of animals giving poor milk on frequent occasions. There are many cows in this country which persistently give milk low in fat and yet appear to be quite healthy and normal in other respects.

Disease.—A cow suffering from disease cannot function normally, and many cases of abnormal fat percentages are due undoubtedly to this cause.

Climatic Variation.—Sudden changes in weather conditions appear to upset the secretion of milk and may result in milk of abnormal composition. This effect, however, appears to be temporary only, as the cow speedily adapts herself to the altered conditions.

Lactation.—In the early stages of lactation the fat content is usually below the average, but towards the end of the lactation period a rise occurs and milk rich in fat results.

Milking.—First drawn milk is poor in fat, the content increasing as milking proceeds. The need for thorough stripping need not be emphasized here.

Seasonal Variation.—Variation of fat percentage with months of the year is due to a complex factor—one probably composed of many. This constituent of milk is usually low in summer and high in winter. Such variation may be caused by the varying conditions obtaining at these periods, *e.g.*, climate, feeding (grass *v.* stall feeding), percentage of cows newly calved, and general management.

Yield.—High yielding cows often produce milk low in fat. Almost always this is due to breed, individuality or period of lactation. There may be cases where high yielding cows persistently produce milk low in fat content apart from the three factors mentioned, but it would be very difficult to substantiate this.

Periodicity of Milking.—Where uneven intervals of time separate the daily milkings, this factor has a profound effect. Milk after the longer interval is always poorer in fat content than that obtained after the shorter period.

Frequency of Milking.—Where cows are milked three times daily, the influence of time between successive milkings on the fat percentage is very marked. The morning's milk coming after the longest interval is usually very low in fat.

Feeding.—Normal feeding appears to have but little influence on fat percentage, although some workers claim positive results in this direction. There is definite evidence, however, that excess of oil in a ration tends to lower the fat percentage in the milk. This has been noticed in the case of rice meal and cod liver oil feeding. A badly balanced ration or insufficient food bordering on starvation will cause a decided change in the normal percentage of fat, but in such cases the health of the animal usually suffers. Crowther (7) states that rations rich in protein increase the fat content of milk.

General Management.—This complex factor includes system of feeding and watering, housing, sanitation, efficiency of milkers, &c. These factors affect the well-being of the herd and, although their

influence may be small, yet possibly one is justified in assuming that a contented and well managed cow will give good quality milk, other factors being normal.

(b) **Solids not Fat.** Factors influencing the solids not fat content are many, but information bearing on these is scanty and uncertain. The writer submits the following list, many of which have been observed during the course of the investigation which forms the basis of this paper. For sake of distinction, they may be divided into four classes, as follows :--

Fundamental.	Temporary.	Complex.	Uncertain.
Breed.	Climatic	Seasonal	Periodicity of
Individuality.	Conditions.	Variation.	Milking.
Lactation.	Feeding.	General	Frequency of
Age of animal.	General Health.	Management.	Milking.
			Yield.

Fundamental factors are those which are beyond the control of the dairy farmer; temporary factors operate for a time only and their influence may diminish rapidly; complex factors are composed of several factors; uncertain factors are those which probably exert an influence, but such influence is small and difficult of detection owing to the operation of other factors.

Breed.—The influence of breed on the percentage of solids not fat has not been investigated with any degree of thoroughness. On reference to the British Dairy Farmers' Association Journal for 1925 one will observe, on perusing the data obtained during the Dairy Show Milking Trials, that the Friesian breed has shown a greater prevalence to produce milk below the 8.5 per cent. limit than the other breeds. The actual figures for 1925 are as follows : -

Breed.	No. of Samples.	No. below 8.5 per cent.	Solids not Fat.
Shorthorn	88	0	
Lincoln Red	32	2	
Friesian	42	8	
Devon	32	0	
Red Poll	30	2	
Ayrshire	62	4	
Guernsey	42	8	
Jersey	66	2	

Certainly the proportion of deficient samples in the case of the Guernsey breed is equally high, but reference to the data obtained in former years indicates that the 1925 results are abnormal for this breed, since only one animal in the previous eight years quoted produced milk deficient in non-fatty solids.

Two of the 15 herds investigated by the writer were Friesian. One consisting of 5—9 pedigree animals gave an average solids not fat content of 8.62 per cent. (64 samples) while the second herd comprising 25 pedigree British Friesians gave, in 81 samples, an average figure of 8.61 per cent. solids not fat. 23 per cent. of the samples from the former herd and 37 per cent. from the latter herd were below the 8.5 per cent. presumptive standard. These may have been exceptional cases, but, in the writer's opinion, the present evidence is sufficiently strong to warrant a full investigation into the prevalence of samples deficient in non-fatty solids in the milk of this breed.

Individuality.—Tocher (1) in his investigation into the composition of Scottish milk found 25 per cent. of samples from individual cow's milk below 8.5 per cent. Capacity to produce milk consistently rich or poor in non-fatty solids appears to be due to some physiological factor at present unknown. An extreme example of the operation of this factor has been recorded in the case of a shorthorn cow now in the Midland College herd. This animal originally belonged to a Leicestershire farmer, and, knowing that it was producing abnormal milk, was purchased in 1925 in order that the milk could be kept under analytical observation. This cow, although aged (6 calves), appears to be perfectly healthy and normal in all respects except as regards quality of milk. Out of 133 samples of milk analysed since May, 1924, only one has exceeded 8.5 per cent. in solids not fat. 26 per cent. of the samples have been below 8.0 per cent. and 10 per cent. below 7.0 per cent. The lowest percentage of non-fatty solids recorded has been 5.30.

In the case of a herd of dairy shorthorns under normal management, samples from all cows in milk were taken on eight occasions between March, 1923, and November, 1925. The following results were obtained :—

No. of cows in milk.	No. giving milk below 8.5 per cent. in solids not fat.		Percentage deficient.
31	14		45
32	16		50
31	10		32
29	7		24
32	11		34
28	11		39
37	14		38
16	6		38

During the three years 30 cows were sold, three died, eight home-bred heifers came into the herd and 29 heifers and cows were bought. One may well ask the question—are such cases as this common, or has the owner experienced almost unprecedented bad luck in the purchase of his stock?

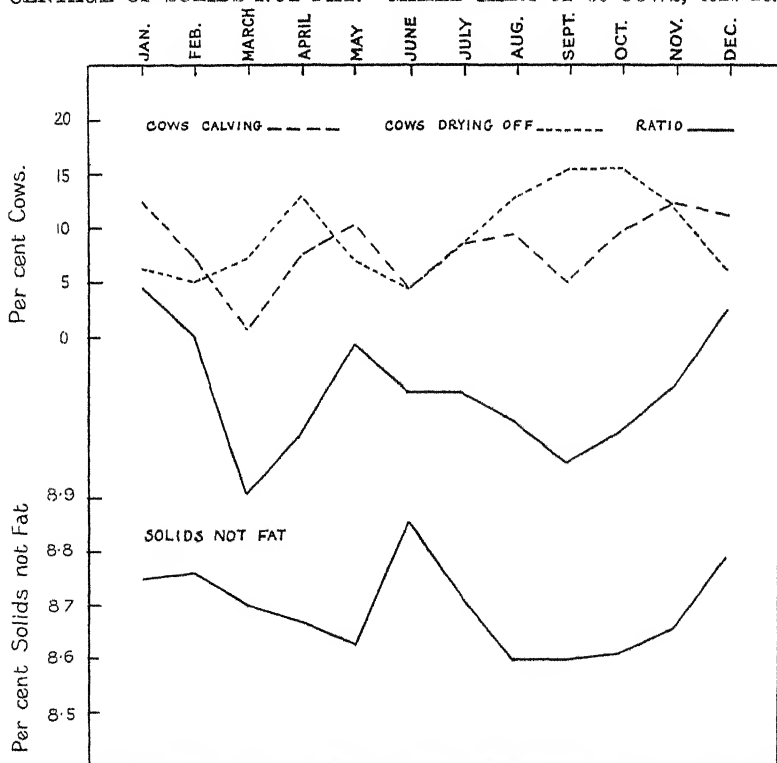
The question whether this factor is inheritable or not also arises. There appears to be no definite evidence on this point.

Lactation.—Several authorities have contributed statements regarding the influence of lactation on the percentage of solids not fat. Summarising the evidence available it appears that the milk of newly calved cows is rich in solids not fat, but that the percentage falls until about the 8th to 12th week after calving. After remaining steady for some time, a rise occurs during the last few weeks. Analyses of the milk of several cows in one of the herds under investigation were recorded for full lactation periods, and, while the fall in solids not fat during the early stages of lactation appeared to be fairly general, there were several cows which showed a rapid fall in the solids not fat content during the last week or two.

The writer is of the opinion that the relative proportion of cows calving to cows going dry in any given period is an important factor influencing the non-fatty solids content of the mixed milk of the herd. In the case of one herd, the milk of which was sampled over a period of three years, this influence has been interpreted in the form of graphs, which are given herewith.

DIAGRAM II.

INFLUENCE OF PERCENTAGES OF COWS CALVING AND COWS DRYING OFF EACH MONTH ON THE MONTHLY AVERAGE PERCENTAGE OF SOLIDS NOT FAT. MIXED MILK OF 30 COWS, 1923-26.



Age of Cow.—There appears to be ample evidence that the solids not fat content of milk falls with increasing age. Both Tocher (1) and Gowen (2) have observed the effect of this factor.

Climatic Conditions.—Normal changes in weather conditions do not appear to influence the quality of milk apart from seasonal influence, but there is some evidence that sudden changes producing abnormal weather do depress the solids not fat, although, if the conditions persist, the milk gradually assumes normality. The following example illustrates this point.

INFLUENCE OF WEATHER CONDITIONS ON THE MILK OF A HERD OF
30 COWS IN LEICESTERSHIRE.

Date of Sample.	Percentage of :—		General weather conditions.
	Fat.	Solids not Fat.	
May 3 ...	3.45	8.68	Temperature high, above normal. Rainfall moderate. Sunshine moderate.
„ 4 ...	4.30	8.85	
„ 7 ...	5.00	8.40	Temperature fell during week. Below normal. Ground frosts. Thunderstorms, snow and hail. Rainfall heavy. Sunshine moderate.
„ 8 ..	4.85	8.55	
„ 10 ...	4.20	8.24	
„ 11 ...	3.20	8.45	
„ 14	3.90	8.79	Similar.
„ 15 ...	3.15	8.70	
„ 21 ...	4.80	8.35	Similar.
„ 22 ...	3.05	8.44	
„ 28 ...	4.25	8.51	Temperature still below normal. Rainfall moderate. Sunshine scanty.
„ 29 ...	3.35	8.95	

Feeding.—Although many farmers declare that feeding influences the quality of milk, there does not appear to be any definite experimental evidence that this factor has any appreciable effect on the non-fatty solids content of milk unless the ration is sufficiently unbalanced as to affect the health of the animals, or insufficient for maintenance.

Some years ago an authentic case of influence due to bad feeding was brought to the writer's notice. A herd of 31 shorthorns were receiving an excessive ration of white turnips and in addition were grazing a rank aftermath. Four churns of milk—two evening's and two morning's—from this herd contained 7.76 per cent., 6.75 per cent.,

7.94 per cent., and 7.70 per cent. solids not fat respectively. Any adulteration was out of the question since the milking was supervised, and the samples taken, by an Inspector under the Food and Drugs Act. The feeding was immediately altered, and normal milk resulted in two or three days.

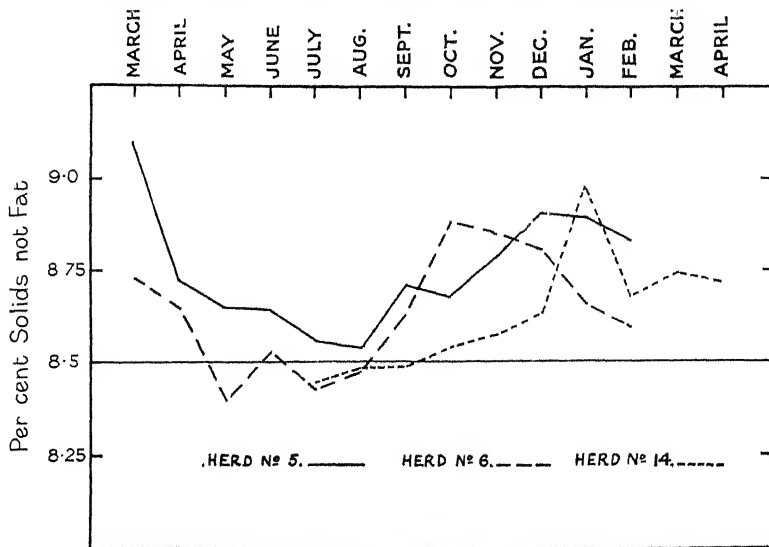
The writer is of the opinion that the quality of grass and hay, particularly when the mineral constituents are considered, may be reflected in the secretion of non-fatty solids, but has no definite information to offer on this point, at present.

General Health.—There are many herds in this country, where contagious abortion, John's disease, tuberculosis and other general wasting diseases, are common. Wynter Blyth (3) has dealt with this question and is of the opinion that certain diseases only, affect the quality of milk. It is reasonable to suppose that healthy animals are more likely to produce normal milk than diseased ones. The writer has noticed that in many herds producing milk deficient in non-fatty solids, abortion is prevalent.

Seasonal Variation.—As mentioned under the section dealing with fat variation, this factor is a complex one. In average herds the solids not fat percentage appears to fall in the spring and summer, rising again in the autumn and winter. Diagram III illustrates the seasonal variation of solids not fat in the milk of three herds during 1925-26. It is believed that period of the year when the majority of the cows calve, and climatic conditions, are the two chief factors contributing towards seasonal variation.

DIAGRAM III.

VARIATION IN THE MONTHLY AVERAGE PERCENTAGE OF SOLIDS NOT FAT. MIXED MILK FROM THREE HERDS, 1925-26.



General Management.—It is difficult to investigate a complex factor of this type and any influence attributed to good or bad management must be largely conjectural. However, no one is likely to dispute the statement that good housing, cleanliness, free access to pure water, and other points of good management are desirable in the production of good quality milk.

Periodicity of Milking.—Unlike fat percentage, there appears to be no marked difference in the solids not fat content of morning's compared with evening's milk. Ingle (4) and Tocher (1) state that morning's milk is slightly richer in non-fatty solids than evening's milk, but that the difference is not significant. Armsby (5) quotes higher figures for milks produced after the shorter interval, *i.e.*, evening's milk. Gowen (2) records slightly higher percentages in the evening's milk compared with the morning's milk. The writer has averaged the percentage of solids not fat in the morning's and evening's milk from the 15 herds investigated, and finds that in the case of eight herds the morning's milk was richer than the evening's, and in the case of three herds the reverse obtained. The milk from the remaining four herds indicated no difference. The average variation for each herd was between 0.05 per cent. and 0.21 per cent.

Frequency of Milking.—Since three times per day milking has been practised to a considerable extent in this country during the past few years only, little evidence is available on this point. Armsby (5) certainly refers to this factor and states that frequent milking tends to increase the percentage of solids not fat in the milk, the shorter the interval the richer the milk produced after that interval. Cummings (6) has published recently data bearing on this point, but an analysis of his figures does not reveal any significant or consistent differences between the percentages of non-fatty solids obtained at the three milkings.

Yield.—The influence of total yield of milk on the solids not fat content is referred to by Gowen (2) who states that there is no significant relationship between the two. Tocher (1) obtains an almost linear correlation curve which indicates practically no variation. In the case of one herd in the investigation under review the writer endeavoured to correlate average daily yield of milk per cow per month with the average monthly percentages of solids not fat in the milk of the herd. No definite relationship was observed, but it was ascertained that a marked influence was being exercised by the ratio of cows calving to cows drying off each month. Any possible connection between yield and solids not fat content was undoubtedly masked by this and other factors.

REMEDIAL MEASURES.

At this point the reader may well ask—by what means can the dairy farmer ensure the production of milk of good and uniform quality? This question is not answered in a few words.

Firstly, the present knowledge on this subject is very scanty and incomplete.

Secondly, the factors referred to are known in the majority of cases to exercise an influence on the percentage of the constituents of milk, but the magnitude of the influence in each case is unknown.

Thirdly, the introduction of measures, indicated by these factors, to control quality in milk may be so drastic in the case of some herds, that the owners may prefer to run the risk of producing milk occasionally below the presumptive limits.

However, pending more research into this all important question, the milk producer would be well advised to carry out, as far as is practicable, the following suggestions, which would certainly minimise the risk he may now run of producing milk below standard quality.

The writer's suggestions are these :—

- (a) Periodically test the milk of every cow in the herd for non-fatty solids as well as fat content.
- (b) Eliminate those animals which consistently or frequently produce poor quality milk.
- (c) Make frequent tests of the milk of every cow or heifer bought in, or home-bred heifer calving, until satisfied that her milk is of good quality.
- (d) Distribute calving, as far as possible, throughout the year, so that at no period the herd lacks newly calved animals.
- (e) Eliminate aged cows from the herd.
- (f) Keep intervals between milking as even as possible, and bulk and well mix all the milk from each milking before dispatching.
- (g) In the case of herds where three times per day milking is practised, keep the intervals as even as possible, *i.e.*, the third milking should be late in the evening, and bulk the morning's and mid-day's milk, if practicable.
- (h) Feed balanced rations and avoid excess of oily foods. Produce good hay and grass by efficient management of the grass land.
- (j) Observe the following points of good management :—See that the cows are carefully and completely milked ; provide a pure and ample water supply so arranged that the animals can have access to water at all times, winter and summer ; care for the health of the herd by improving housing and sanitary conditions, especially on farms in exposed districts.

In conclusion, one ventures to suggest that variation in the composition of milk is one of the many agricultural subjects urgently needing investigation, and it is only by whole-hearted support of such work can the farmer hope to improve his business. It may interest the reader to know that a Committee of dairy experts are now considering a scheme for research into the problems which have been discussed in this paper, and it is anticipated that this scheme will materialise, provided the necessary financial support is forthcoming. It is sincerely hoped that many of the dairy farmers of this country will take an active interest in this work, and do all in their power to carry it to a successful conclusion.

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CERTAIN ASPECTS OF MILKING TRIALS.

By STEPHEN BARTLETT, M.C., N.D.D.

ONE of the best known "Short Period Milking Trials" in the country is the "Two-day test," carried out yearly at the Show of the British Dairy Farmers' Association in London. In the following observations it is proposed to pay particular attention to these trials, the chief object being to discuss certain details, and where possible, to offer constructive criticism, with a view to obtaining the most reliable and genuine tests of milking ability which are possible under available conditions.

RELIABILITY OF THE TWO-DAY TEST.

As is well known, the method of conducting the milking trials at the London Dairy Show, is to weigh the milk which each cow produces during a period of 48 hours, and to base the quality of the milk as regards butter fat and solids not fat on the result of a 24-hour test.

Now the accuracy of a short period test depends very largely on two factors :—

1. The normal variability of the yield of milk, fat, and solids not fat.
2. The possibility of competitors being able to cause abnormal variations in the quantity or quality of the milk produced during the period of the trials.

1. Normal variations in the yield of milk, fat and solids not fat.

By the above heading is meant the extent to which the milk yield (also fat and solids not fat) of a cow under normal conditions oscillates or rises and falls from day to day, *e.g.*, it will be quite obvious that if the percentage of fat in the milk produced by a cow jumps from 3 per cent. on one day to 6 per cent. on the following day, a short period test would be much less accurate than if the fat only varied from 4.0 per cent. on one day to 4.2 per cent. on the following day.

It has long been recognised that the normal variation in fat percentage is very considerable, and references to the literature would be almost superfluous, but real measures of the extent of these variations are not common, and in view of the rapid advances made during

recent years in systems of managing and feeding cows, some figures based on recent analysis may be most convincing. It has, therefore, been decided to give in Tables 1 and 2 examples of these variations by a method commonly employed by statisticians which method is recognised as being reliable and also lends itself to calculation for comparison with other data. An endeavour has been made to avoid technical language as much as possible, without losing too much of the underlying facts, so that to those readers who have no interest in figures, the main essentials may be understood if desired.

The figures in Table 1 are approximations based on results from cows under normal farm conditions and tested at every milking for a sufficiently long period to ensure accuracy. The usual mathematical formulæ were employed to calculate the standard deviations and co-efficients of variation.

TABLE 1.

Showing the co-efficients of variation of the yield of milk, solids not fat, and butter fat of normal cows during the early months of lactation.

Variable.	When calculated from—		
	A single milking.	The average of two milkings in 24 hrs.	The average of four milkings in 48 hrs.
Milk Yield	6	4.25	3.0
Weight of solids not fat	6	4.25	3.0
Weight of butter fat	15	10.5	7.5

Whether the term "Co-efficient of Variation" is understood or not, two points in the above table will be obvious; the first is that the variability of the milk yield and the weight of solids not fat are very similar, and the second point is that the variability of the weight of butter fat is considerably greater.

A reasonable interpretation of the above figures would be as follows:—If 100 cows (which, over a period of, say, three weeks) each yield an average of 60 lb. of milk per day, the yield of milk on any one day from 50 of these cows will be between 58.3 and 61.7 lb., and 99 of the cows would yield between 53.4 and 66.6 lb.

Needless to say, if we average the yields of two days from these cows, the range within which 50 per cent. of the yields will fall will be less, and in this case would be 58.8 to 61.2 lb., and the 99 per cent. range would become 55.4 to 64.6 lb. From the table given below similar statements may be deduced regarding the variability of the three factors under discussion.

TABLE 2.

Showing the normal limits of variations of milk yield, solids not fat and fat.

		Weight of milk. (Assumed average, 60 lb.)	Weight of solids not fat. (Assumed average, 5 lb.)	Weight of fat. (Assumed average, 2.1 lb.)	Percentage of fat. (Assumed average, 3.5 per cent.)
		lb.	lb.	lb.	%
When a single milking only is weighed. (a.m. or p.m.)	Range for 50%	—	—	—	3.15-3.85
	Range for 99%	—	—	—	2.15-4.85
When a complete day is weighed (2 milkings)	Range for 50%	58.3-61.7	4.86-5.14	1.95-2.25	3.25-3.75
	Range for 99%	53.4-66.6	4.45-5.55	1.53-2.67	2.55-4.55
When a two day average is obtained	Range for 50%	58.8-61.2	4.9-5.1	2.0-2.2	3.32-3.68
	Range for 99%	55.4-64.6	4.6-5.4	1.7-2.5	2.8-4.2

From the above table it will be observed that during short periods milk yield and solids not fat vary but little from day to day, so little, in fact, that it is only in exceptional cases where the yield for one day does not give a valuable criterion of the producing ability. The yield and percentage of fat, however, is subject to considerable variation, and it is evident that in short period tests chance or luck must play an important part in the award of points in this particular section. This is undoubtedly a serious defect in short period milking trials, and the question which arises is: Can any practical steps be taken to remedy or reduce this defect? It is not proposed to offer remedies which affect the principles of Milking Trial points, but simply to make two suggestions with the object of reducing the element of luck in the allocation of these points. The first suggestion concerns the penalty of 10 points deducted from cows, which, at any single milking produce milk which contains less than 3 per cent. of fat. Reference to the last column of Table 2 will show that with cows which on the average yield 3.5 per cent. of fat, 50 per cent. will yield something outside 3.15 to 3.85 per cent. at any single milking, so that quite an appreciable number of these cows will yield less than 3 per cent. of fat at some milkings.

Since our present knowledge of the real causes of the variations in fat percentage is very limited, it becomes an absolute lottery as to which of the above cows will yield milk which is under standard at any single milking.

It is not suggested that a penalty of some kind for cows which persistently yield poor quality milk is undesirable, but that the system of penalisation for poor milk at a single milking may be unjust and can be improved upon.

The solution would appear to be a penalty of any desired severity for cows which yield milk low in fat percentage for an average of one or preferably two complete days.

Perhaps it should be made clear that as the figures in Tables 1 and 2 which relate to single milkings are calculated from "all morning" or "all evening" yields, the practice at the Dairy Show of milking at approximately equal intervals does not reduce the criticism of the present system.

The second possible method for eliminating chance is in respect of the number of tests employed to ascertain the fat content of the milk of each cow. The present system is to base the quality of the milk on samples from each milking for 24 hours only, whereas the Milking Trials cover a period of 48 hours. The increased accuracy of testing the milk for 48 hours instead of 24 hours may be observed from the last column of Table 2 where it will be seen, that assuming cows to be milked twice daily and yielding 3.5 per cent. fat, the 99 per cent. range of a 24-hours test is 2.55 per cent. to 4.45 per cent., and a 48-hours test is 2.82 per cent. to 4.18 per cent. (The range of variation would be lower for the 24-hours and 48-hours test in the case of cows milked thrice daily.) Separate chemical tests for every milking for 48 hours would, of course, be almost impossible, but it is difficult to see any objection to the system of composite samples. The adoption of this system would require a sample to be taken at every milking for the two days of the trials, preserving the samples (*e.g.*, by cold storage, formalin, or some other suitable preservative), mixing a single composite sample for each cow and testing it. An ingenious and apparently satisfactory mixer for the preparation of composite samples is described by Houston (1) and if this apparatus is not entirely suitable there are many other possible methods available. The employment of this system would not only increase the accuracy and value of the trials, but would reduce the testing and calculations involved.

It is not proposed to discuss in detail other known causes of variation, such as the "Effect of Stage of Lactation" and the "Season of the Year" in this article, but attention will now be directed to the second sub-heading, noted in an earlier paragraph, *viz.* :—

2. The possibility of competitors being able to cause abnormal variations in the yield of milk, fat and solids not fat for the period of the trials.

In dealing with this subject it should be mentioned that as a rule the solids not fat appear to vary similarly to milk yield, and very little further observation will be made regarding the solids not fat, since it may be assumed that usually when the milk yield increases or decreases, the weight of the solids not fat increases or decreases proportionately.

The two methods most commonly considered effective in increasing

the milk yield and butter fat percentage in cows' milk for a short period are :—

- (a) Abnormal milking methods, *e.g.*, incomplete milking previous to the test period ;
- (b) Nutritional methods, *e.g.*, the feeding of certain types of rations, condiments or drugs ; or sudden changes in the food of the cow.

(a) *The effect of abnormal milking methods on the milk yield and butter fat.*—The result of incomplete milking on the yields of milk and fat at subsequent milkings has received a considerable amount of attention and study.

The fact that incomplete milking if constantly practised gradually reduces the milk yield of a cow is of no particular interest in connection with Short Period Milking Trials, but the general idea that most of the milk left in the udder of a cow at one milking will be recovered at the following milking needs discussion in connection with the usual show-yard regulations regarding the stripping of animals at the commencement of Milking Trials.

Some of the records of the National Institute for Research in Dairying (2) show quite clearly that the day-to-day variation in fat percentage is affected by the milker, even when all the milkers are apparently efficient, which points to the importance of allowing no change in milkers during the stripping and test period of Milking Trials.

Regan and Mead (3) found that leaving half the milk of a cow in her udder at the milking immediately before a two days test, produced an average increase in fat of 0.27 per cent. Also the highest percentage of fat was not always reached at the milking following partial milking, but in 12 cases out of 27 the highest percentage was secured at the second milking after the partial milking. This point is of obvious importance in connection with the Dairy Show Trials.

In the above experiment the increase in milk yield due to partial milking was found to be only 0.766 lb., so that it appears that the fat percentage is more affected by partial milking, than the milk yield. Other workers substantiate most of the above conclusions, and Fitch (4) found that partial milking produced the greatest effect on milk yield at two milkings following the partial milking, that the effect on the yield of butter fat was more prolonged, and that the effect on the butter fat percentage covered a still longer period.

The chances of partial milking increasing subsequent yields appear to approximate 2 to 1.

From the foregoing it appears that incomplete milking is a very potent factor in affecting subsequent yields of milk and milk solids, not only at the milking immediately following but also at milkings further removed, and it is essential that the stripping of cows before short period tests should be thoroughly and carefully carried out.

The importance of this point led the writer to analyse some of the milk yields obtained at the Dairy Show in order to discover whether the present method of stripping was fulfilling its object.

The publication of full details of the analysis is unlikely to serve any useful purpose but the study of the results indicated :—

- (a) That as far as could be ascertained the stripping as carried out at the Dairy Show is generally efficient, with slight variations from class to class.
- (b) That when the times of sampling for chemical analysis were known previous to the commencement of the Trials to be the second day, there were some indications that the milking out during the first day of the Trials was not as thorough as during the second day.

From the foregoing it appears that if the stripping of cows before the commencement of Milking Trials is to be really effective it should be carried out for two consecutive milkings instead of once ; and that no change of milkers should be allowed from the first stripping to the end of the trials. Too much vigilance on the part of those responsible for enforcing the regulations regarding stripping would be almost impossible and disqualification for improper stripping in place of the present "deduction of points" is worthy of consideration. If the tests for butter fat are carried out on the second day of the trials, some special precautions are necessary to avoid unfair advantage being taken by some competitors, *e.g.*, if samples for analysis are not taken on the first day of the trials the cows might be stripped by show authorities on that day.

(b) *Nutritional methods of affecting the yields of milk and milk solids produced by a cow.*—The chief aspect of this question which has a direct bearing on Short Period Trials is the effect which can be produced on the yield and quality of milk during short periods only.

A large amount of experimental work has been carried out to decide the effect of different rations on milk production and publications on the subject are abundant, but the results are somewhat conflicting. Some examples of these experiments are quoted below.

Woodward (5) found that water and minerals taken by cows in varying quantities did not effect the fat content of the milk although the feeding of prickly pears (a food high in water and mineral content) is reported to reduce the percentage of fat in milk, in proportion to the quantity of pears fed.

McCandlish (6) found that a temporary increase in fat percentage was produced by a food high in protein, *viz.*, cotton-seed meal, but the effect did not appear to be permanent.

Nevens, *et. al.* (7) found that the feeding of certain oils particularly linseed oil, increased the fat percentage in milk, but most of the increases took place during the few days after the changes in food and the experiments did not cover a sufficiently long period to decide the permanence

of the results; these experiments should not be interpreted to indicate that the feeding of any oil to milking cows will increase the fat percentage since Drummond *et. al.* (8) found that the addition of cod liver oil to a ration low in oil content, had the effect of depressing the fat percentage in the cows' milk.

If a cow is calved down in good condition she is likely to yield milk richer in fat than if she calves in a poor condition (9). The length of time which elapses before body fatness at calving will effect the fat percentage in the milk is doubtful, but probably the effect will be continued until the time when the cow has been reduced to her normal "in milk" condition, which will be decided by her ration, her digestion, her milking capacity or some other limiting factor. It appears, therefore, that under suitable conditions it is possible for fat to be transferred from the body of a cow to her milk, but the evidence showing that fat percentage can be increased by direct feeding is controversial.

Most of the changes which have been found to occur in the composition of milk as a result of feeding certain foods have been temporary in nature, and as soon as the cows had become used to the new foods the composition became normal. Just after a change in feeding, however, there is a general tendency for the fat percentage to become abnormal and a common occurrence is that the milk yield decreases slightly and the fat percentage increases. The reason for this is probably an indirect effect of the new food in disturbing the animal's system and the same result often occurs when a cow is abnormal for any reason other than feeding, *e.g.*, when the animal is "in season" or has developed a slight feverish condition. The effect of these particular causes are very varied, however, and it is most impossible to forecast what result will be produced on the milk and milk solids. The general conclusion which may be made regarding methods of increasing the yield of milk solids by methods of feeding is that if such methods exist, those which produce consistent results have not yet been discovered.

TWICE AND THREE TIMES MILKING.

The introduction of optional three times daily milking at the London Dairy Show has caused much discussion, but whatever arguments may be advanced for or against the new system, it is generally accepted and has been repeatedly demonstrated that the interval between milkings effect the milk yield of a cow. Many persons who are interested in the subject consider that in order to obtain fair competition between cows which are milked twice daily and other cows which are milked three times, a system of handicapping should be introduced.

The increase in milk yield obtained by an extra milking per day is often discussed and expressions of opinion vary between wide limits; in the same way many of the experiments which have been carried out to solve the problem have yielded inconclusive and

diverse results. The reason for lack of agreement may be that the effect of more frequent milking involves more than a single factor, *e.g.*, Ragsdale, Turner and Brody (10) suggest that milk secretion behaves in a similar manner to certain chemical reactions which gradually decrease as the accumulated product increases, but it is quite possible that other factors may effect some cows such as the pressure or discomfort which must occur and be more pronounced in the case of some heifers and those cows in which the milk producing impulses are relatively larger than the udder.

In view of the possibility of discussions or decisions in connection with the question of handicapping or correction for thrice-milked cows, further reference to the work of Ragsdale *et. al.* may be of interest. The experiments quoted appear to have been well planned and controlled, and some definite results obtained. Cows were milked at varying intervals from one hour to 36 hours, and by plotting the results on a chart a definite rate of decrease in milk production was found to occur as the interval between milkings was increased. Extracts from the results show that—

5.0 lbs.	of milk	was secreted in	6 hours.
6.3	"	"	8 "
7.5	"	"	10 "
8.6	"	"	12 "
9.6	"	"	14 "
10.6	"	"	16 "

Using the above figures as a basis it will be found that the milk yield of a cow in 24 hours would vary according to the interval between milkings as follows :—

Interval between milkings. Hours.	Calculated yield in 24 hours. lbs.	24 hours' yield as a percentage.
6	20.0	116
8	18.9	110
10	18.0	105
12	17.2	100
14	16.5	96
16	15.9	92

From this statement it may be inferred that the cows milked three times daily at the Dairy Show (8 hours intervals) should produce 10 per cent. more milk than the cows milked twice daily (12 hour intervals), and if the latter are to be corrected for direct comparison with the former an addition of 10 per cent. should be made to the milk yield.

The effect of shorter milking intervals on fat percentage was also studied, and it was found that provided the milking intervals did not exceed 16 hours, the fat percentage increased as the intervals between milkings were shortened. The actual increase in the fat percentage

when the milking intervals were reduced from 12 to 8 hours was about 20 per cent., but it appears that the factors which govern the relationship between milking intervals and fat percentage may be more complex than is the case with milk yield.

LIVE WEIGHTS.

The National Milk Cup and National Butter Cup at the British Dairy Farmers' Association Show are awarded for Milking Trial points calculated in connection with the live weights of cows. The fact that the method of award appears to favour the smaller cows (11) does not need discussion here, but in view of the great variations which occur in the live weight of a cow from hour to hour (12) some remarks which may aid competitors and Show authorities to avoid some of these variations, may add to the reliability of the results.

When weighing their cows, the object which all competitors will desire (in an endeavour to win the cups mentioned above), will be to reduce the weight of their cows to their lowest possible limit. As a legitimate means of attaining this, abstinence from food and water for three to four hours before weighing is suggested. If a longer fasting period is attempted there is unlikely to be any appreciable reduction in weight and the subsequent milk yields may be affected.

A reasonable method of weighing the cows might be that the Show authorities should notify competitors the approximate time when each class will be weighed, so that all competitors are on the same footing as regards taking advantage of reasonable methods of weight reduction.

THE BLEDISLOE TROPHY.

As this is probably the most coveted trophy at the London Dairy Show no further excuse is needed for reference to the method of awarding. The present system is to total the Milking Trial points of the six highest scoring animals in each breed and to add points for inspection. There are two criticisms which can be made.

- (a) The smaller breeds stand very little chance when competing with breeds of nearly double their size.
- (b) The points awarded for Inspection appear to lack a sound basis.

(a) *Size of Breeds.*—In most instances it is probable that the large animal is a more economical producer than the small animal, but there can be little doubt that both large and small cows have their uses under certain conditions. If the principle of an allowance to balance the effect of the size of the various breeds could be adopted, it would be quite feasible to introduce a correction factor which would bring the smaller animals on a more equal standing with the larger breeds. The best correction factor would probably be one based on the surface area of the animals with a small allowance to counter-balance additional costs other than food, which may be fairly chargeable to the smaller cows.

Inspection Points.—The chief objection which is raised against the Inspection points awarded in connection with the Bledisloe Trophy is that a breed which sends only six representatives to the Dairy Show is almost certain to obtain the maximum points, irrespective of the standard of animals shown, whereas the breed which sends 10 to 20 representatives seldom obtains more than 50 per cent. of the Inspection points. As a suggestion to overcome this defect the following method appears to the writer to deserve consideration.

The animals to compete for the Bledisloe Trophy to be the first three or four animals in the Milking Trials and the first three or four animals on Inspection. The Milking Trial points obtained by all these animals to be totalled for the final Breed score. In the event of the same animals winning the Milking Trials and Inspection prizes the points for these animals would be counted twice.

The chief effect of the system would be that the points awarded for inspection would be in proportion to the milking qualities of the animals which are considered of the best type for the breed, and the entry of more than six cows in a class would certainly not lower the chances of high inspection points. Another important point, however, is that the proposed scheme still further penalises the smaller breeds and, therefore, would not be an improvement unless adopted in conjunction with a correction for the size of the cows.

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DAIRYING IN CHINA.

By REGINALD GRANT.

Generally speaking there is no dairying industry in China with the exception of town dairies established in the Treaty Ports and the larger holiday resorts. Upon these the foreign residents and visitors depend for supplies of fresh milk and cream.

Missionaries have also established some stock-breeding centres in various parts of the interior, chiefly run on experimental lines to demonstrate both the value of milk as an article of food and also the advantages of crossing native cattle with imported animals. The Chinese, however, are not greatly interested in milk production, as few natives will consume fresh milk unless they have been for some considerable time in contact with the foreigner. It is probable that it will be many years before milk will be regarded as an everyday article of diet by any but a very small number of the Chinese. The increasing demand, however, from Chinese residents in the Foreign Settlements for cows' milk from reliable dairies indicates that in course of time, and where conditions are at all favourable, the wealthier classes of Chinese will become regular consumers. The Japanese are fast becoming a milk drinking race, and given equal opportunities there is little doubt that the same demand would, in course of time, develop in China. It is an interesting fact that it is almost always possible to purchase tinned milk in the interior even in very remote localities. Also the demand for imported butter and cheese is steadily growing, more particularly the former. Very considerable quantities of the best Australian butter is now imported.

The Chinese produce and consume small quantities of Water Buffalo milk. This milk is very rich in fat, frequently containing as much as 17 per cent. The milk of the native cow is also very rich in fat, but she seldom, if ever, produces more than is sufficient to rear her calf. A considerable amount of mare's milk is consumed by the Chinese, it is usual for the pony mares with foal at foot to be led from house to house and milked in the presence of the customer.

The factor that will always prevent milk production becoming an extensive industry in China is the difficulty in inculcating the most rudimentary principles of cleanliness and sanitation. As an instance, it is impossible to make the native milker understand the necessity of using clean utensils, he will not hesitate to use milking pails for washing clothes or any other domestic purpose, further he has no conscience qualms about adulteration. In one instance a

native dairyman worked up a very lucrative small business with foreign residents, his procedure was to lead his cow from house to house and milk the quantity required into the receptacle provided by the consumer. It was eventually discovered the milk supply from the cow was skilfully augmented by means of a rubber hot-water bottle carried under the coat and a rubber tube passing down the sleeve into the milker's hand.

House servants are frequently guilty of adulterating milk after it has been delivered. They have, as a rule, two reasons for doctoring the milk, either they have acquired a taste for milk themselves or else the dairyman supplying the household does not pay the cook sufficient "squeese" it being an understood thing in China that the servants get a commission on all the householder's purchases.

The coolies employed for delivery of milk will always if any opportunity occurs endeavour to make two bottles of milk into three. These small difficulties are sufficient to indicate the difficulties one has to tackle in trying to provide a reliable pure milk supply.

Shanghai being by far the largest of the Treaty Ports with a very large foreign population has tackled the problem of a satisfactory milk supply with very considerable success, in the writer's opinion the milk supply, although not always equal to the demand, is as good in quality and cleanliness as that of any other city in the world.

The problem had been enjoying the attention both of the Municipal Health Department and the public for some very considerable time, with the result that a Pure Milk Commission was appointed to consider the whole question. All available evidence was collected and most carefully sifted with the result that the Municipal Council issued new and stringent licence conditions. Under the new conditions all dairies were obliged to bring their herds, buildings and equipment up to what is designated the "Grade B" standard. Dairies whose equipment and produce was in advance of these requirements were permitted to apply for a "Grade A" licence, and all dairies failing to comply with the grade B requirements were closed and their licences withdrawn.

The following is a brief summary of the licensing conditions:—

All buildings to reach a required standard of cleanliness, ventilation and sanitation.

Plans of new buildings have to be submitted for approval. Very special attention is paid to lighting and ventilation, drainage, &c.

Special regulations for the removal and disposal of dung are strictly enforced.

All animals in the herd have to undergo veterinary examination twice per annum for Grade B, and quarterly in the case of Grade A licences. The veterinary surgeon to be approved by

the Municipal Council. The cost of veterinary examination is borne by the licensee.

A register of all animals with identification marks and numbers has to be kept, and is subject to inspection by the Public Health Department.

All animals discarded dead or alive have to be disposed of in a manner approved of by the Commissioner of Public Health.

The staff employed are subject to medical examination.

Milk has to be cooled to a temperature of 45°F. within 30 minutes of milking. In the case of Grade B dairies the use of artificial ice is permitted for this purpose, and Grade A dairies are required to instal a cold storage plant for cooling and storage purposes.

Covered or hooded milking pails are compulsory and adequate steam supply has to be provided for the sterilization of all bottles and utensils.

Where milk is pasteurized the Holder method is insisted upon. Time and temperature records of all milk pasteurized being kept.

The result of these regulations, the foregoing being a very brief summary, is that the milk supply of Shanghai now shows that a very high standard has been reached. The bacteriological content being very low indeed. A state of affairs very satisfactory both to the producer and consumer.

The writer has during the past four years been associated with the largest dairy in Shanghai, the directors of which have aimed at supplying milk that could safely be drunk without the consumer having to boil it. People with any knowledge of the conditions in the Far East will readily understand that this is a somewhat formidable and also a very expensive task.

The problems to solve in order to attain this result might be tabulated as follows:—

1. An adequate supply of healthy cows of desirable dairy herds.
2. Suitable housing and feeding.
3. The establishment of adequate veterinary routine to (a) protect the herd from rinderpest, and (b) other diseases.
4. The recruiting and training of suitable native labour with provision for continuous foreign supervision.
5. Selection and installation of suitable machinery and equipment.
6. Distribution and delivery.
7. Office work and administration.

These problems were investigated in the foregoing order.

The dairy having grown from very small beginnings where just a few cows were kept to supply the owner and his friends, the question of obtaining satisfactory cows has been a difficult one. Local supplies were both very limited and unsatisfactory. Native cows being to all intents and purposes useless for dairying. The cows producing only sufficient milk to rear their calves. Foreign cows reared locally could at times be bought, but usually these were of very mediocre quality. These sources of supply having been investigated, it was decided to purchase and import from abroad. Shipments from Japan were not satisfactory, though the short voyage has many advantages. Shipments from Australia were then tried and some very good animals of the Ayrshire and Illawarra types were obtained, the average, however, was not satisfactory and it was decided to purchase a shipment of good commercial Ayrshires from home. In October, 1922, 40 in-calf cows and heifers and two well bred bulls were landed in Shanghai, 11 of the cows calved at sea, and the animals were on board for 48 days and landed in excellent condition. These animals gave such satisfactory results that a further shipment of 72 animals was imported the following year. As a herd the Ayrshires have withstood the climate, resisted disease and have made very satisfactory milk records. Subsequently, further shipments have been made from British Columbia, in this case Friesians have been purchased, one of these, a heifer, established the dairy record, producing 70 lbs. of milk per day.

The herd now comprises in round figures 60 per cent. Ayrshire and Ayrshire crosses, 20 per cent. Friesians, and 20 per cent. mixed cross-breds, including several Jerseys. The herd strength now numbering about 350 animals.

Housing.—The local regulations provide for adequate lighting, air space and drainage, but owing to the very wide range of temperatures varying from 104°F. in summer to 16°F. in winter, special provision has to be made in the construction of byres. The best results are obtained where the byres run east to west, the south sides of the buildings being made of removable wooden shutters. By removing these shutters in the warm weather the cows get the full benefit of the southerly breezes from the summer monsoon. In winter the shutters are fixed, covered with paper, and the paper covered with bamboo-matting. This method of closing the byres in winter entails a certain amount of labour and expense. In the coldest weather all in-milk cows are rugged.

Feeding.—Modern principles of feeding are carefully followed in balancing up the ration. The starch equivalent and albumenoid contents of all available feeding stuffs is ascertained and the most economical ration is worked out. Unlike most other countries it is difficult to get starchy feeding stuffs produced locally, while as a rule, beans of several kinds and decorticated cotton-seed cake is always

available. The provision of adequate bulk feed is also a very difficult problem. In Shanghai rice straw is the only bulk feed that can always be obtained. This is fed *ad lib.* all the year round, and stock are bedded on this commodity. The method of feeding is as follows: A maintenance ration for the whole herd is weighed out and mixed in large concrete vats with water, in winter the mixture is warmed with steam. The maintenance mixture is fed in the form of a sloppy mash just before milking, three times daily. To the maintenance ration 2 lbs. of production ration in the form of meal is added for every 5 lbs. of milk produced.

Green-feed, viz., grass (so-called) in summer and carrots in winter are fed after milking. There is absolutely no pasture available in or near Shanghai, and the Chinese cultivate every foot of land. The grass and weeds, outer leaves of cabbage are brought to the dairy and purchased by weight. This greenstuff is probably of very low feeding value, but the stock seem to eat almost any green food with great relish.

Cows are milked three times daily, the first milking being at 2.30 a.m., the milking intervals being as nearly as possible eight hours. Milk is weighed from each cow at each milking and careful records kept.

Veterinary supervision of the herd is constantly maintained, a veterinary surgeon seeing the herd daily. The temperature of every animal is taken daily and reported at once if abnormal. The main object of this work is for the purpose of spotting rinderpest in the early stages, in this dread disease the thermometer is the only means of detecting the commencement of an outbreak. A hypodermic injection of serum in the early stages of the disease followed by further injections, if necessary, is the only hope of saving the animal.

Rinderpest is nearly always present in Shanghai, more especially during the colder months. In the past it has been the worst difficulty that the dairyman had to face. Epidemics frequently cause a loss of 80 per cent. of the non-immune animals, where the vet. has not been called in time.

Other diseases of cattle occur in Shanghai in much the same proportion as in other countries, next to rinderpest the dairyman's most serious problem is contagious abortion. Immediate isolation and disinfection is apparently the most satisfactory way of dealing with this disease. The fact that all animals are stall-fed all the year round and under constant supervision ensures that cases of sickness are usually quickly detected, and apart from rinderpest the bill of health is better than it is with average commercial dairy herds at home.

Labour, compared with Europe, is plentiful and cheap, but requires careful training and handling, with constant trained foreign

supervision, if satisfactory results are to be obtained. As elsewhere, the cost of labour is rapidly rising. The present chaotic state of China is constantly raising the cost of rice, necessitating a rapid rise in wages if serious labour trouble is to be avoided.

In the writer's opinion all milk in the Orient should be subjected to pasteurization. The low temperature Holder Method has given most satisfactory results during the past three years. The milk so treated has gained the confidence of the public; and the results of tests made by the Public Health Department (on this milk), both analytical and bacterial, have been most satisfactory.

Milk is delivered in American standard milk bottles twice daily by means of hand-cart. All bottles being filled and sealed with cap and ring mechanically. The cap on the bottle bearing the day of production.

Office routine and administration requires little comment. Retail dairying always entails here and elsewhere a very detailed system of book-keeping. Customers' accounts being posted monthly.

INTERNATIONAL DAIRY CONGRESS, 1928.

BY LORD KENYON, K.C.V.O.

INTERNATIONAL Congresses or Conferences seem to be popular nowadays, and at the moment an International Conference on Poultry Keeping is being held in Canada. Nations seem to be willing to impart and receive knowledge that some years ago would have been retained for their own profit. Thanks chiefly to the British Dairy Farmers' Association the opportunity of holding the 1928 International Dairy Congress in England is to be seized. H.M. The King patronizes it and Mr. Neville Chamberlain and the Hon. Walter Guinness, respectively Ministers of Health and Agriculture, are joint Presidents. Seven Congresses have been held abroad during the past 24 years under the auspices of the International Dairy Federation, and most if not all of these have been attended by British delegates. It, therefore, seems reasonable that we should act as hosts in our turn.

There cannot, I think, be any doubt that much instruction has been circulated and benefit given by previous Congresses. They have resulted in better relations between nations, great advantages to all sections of the dairy industry and improvement in public health. I believe an increase in the consumption of milk has followed a Congress in the country in which it has been held, so we may hope that, as we are far behind other civilized countries in the percentage of milk drunk per head, a like result may occur here.

Only the broad outline of a programme has been arranged. Some four days at the outset will be devoted to the reading of papers, and discussion thereon, in London. These papers will be given by selected men of admitted authority on subjects, chosen by a Committee as specially important to the Dairy Industry as a whole. On the afternoons of the first week visits will be arranged to various farms, factories and distributing plants within easy reach of the Metropolis. Opportunity will be given in the next week to visit Reading, its Dairy Institute and experimental station, the Royal Show at Nottingham,

and the Midland College, while it is hoped also to extend excursions to Scotland and Ireland. We shall try to show our visitors as much as possible, while we may hope also to glean information from them.

It is felt that the Congress cannot fail to be of permanent benefit to the Dairy Industry as a whole by focussing public attention on the value of milk and milk products as a food, and the advantages to be gained by their increased consumption, for in no country has the consumption point been reached, which, in the interests of public health, is scientifically recognised as desirable. All of us as consumers and some of us as producers and distributors are interested in the Dairy Industry, so we appeal to all to help to make the Congress a success to the utmost of their power. Already intimation has been received from the United States and from Canada that a very large contingent of delegates intend to be present. It is confidently hoped the other Dominions and Colonies will rally to their Mother Country. It is interesting to note that at this early date enquiries have been received from Japan and South America.

To welcome our guests in the same generous fashion that our delegates have hitherto been received, the Committee will make a wide appeal for funds, in the confident assurance that they will be supported in their effort to make this at least as effective a Congress as any that have preceded it.

KENYON,
Chairman General Committee.

January 12th, 1927.

BACON PIGS, BACON AND HAMS, DAIRY SHOWS, 1925-6.

By W. J. GRANT.

THE value and importance of the Classes for Bacon and Hams at the Dairy Show is increasing at each succeeding Show and gives an opportunity to the enormous number of people who visit the Dairy Show each year to grasp the plain practical fact that the finest and best bacon which it is possible to produce, is still, as it should be, bred, reared, fed and cured in the Old Country.

In the classes for Bacon and Hams, the actual total number of entries for 1925-26 are nearly equal, but at the same time, one feels with regret that notwithstanding the liberality of the prizes offered, some of the classes, both in the Dairy Shows of 1925-26, either did not fill or had, from want of appreciation to be deleted.

It is unfortunate that the Midland and Northern curers would not compete in the two classes provided for bacon that is both popular and commands the market in the North Midlands—*i.e.*, Pale Dried Hamless Sides, English Shoulder Belly, not exceeding 50 lbs. a side, and the other class—Four Hamless Special Cut Sides, not exceeding 45 lbs. each side, Spring or Winter Cure. In either class, it was hoped, bearing in mind the fine exhibits that for many years came to the Dairy Show from Carlisle, that the Northern curers would have appreciated the effort made on their behalf.

The inducement to our Scotch friends to exhibit Rolled Bacon, met with no response. Are our Ayrshire friends taking time to consider—they were for a mighty long time chewing the cud of reflection before they sent their cows to the Dairy Show. Truly, their long consideration has had its reward!

It seems a pity and a great mistake that in the many counties in England and Wales where there are such numbers of small farms and small holdings, no attempt is being made by those who could and those who should, to encourage and assist such occupiers, to cure and exhibit hams in the special class that is provided for them. The same remark applies to a similar class for women who are members of women's institutes. Bearing in mind the enormous amount of money that is being spent on education, surely the time has come for all of us to realize the stern but simple fact that the surest way to appeal to every mortal is through his pocket!

It will be seen from the entries tabulated, the increase from four to thirteen entries in the class for Four Sides of Colonial Bacon, the colonial bacon exhibited at the Dairy Show of 1926 was by far the best lot that has yet been shown in the Gilbey Hall from the colonies, but at the same time, I noticed in almost every entry, one or more sides spoiled by seedy cut or bad belly.

The hams in the Selling Class in 1925 were not by any means up to the quality that should have been staged in this class, while the hams in the same class, 1926, although less in number, were with a few exceptions an excellent example of what English hams should be.

In the Bacon Classes for both the Dairy Shows of 1925-26, all the exhibits were excellent and more than justified the well-earned reputation of each competitor.

The Ham Classes were varied, both as to type and character. Some of the hams were of the highest order of excellence and on the other hand, hams were put up for competition that did not deserve the space they occupied.

Number of entries in the classes for Bacon and Hams at the Dairy Shows, 1925-6, were as follows:—

BACON—	1925.	1926.
Pale Dried—Four hamless sides, English shoulder belly of spring or winter cure, weight of side not to exceed 50 lbs.	2	—
Pale Dried—Four hamless special cut sides of spring or winter cure, weight of side not to exceed 45 lbs.	2	—
Owing to the very poor entries for the liberal money prizes offered, the above two classes were withdrawn from the 1926 prize schedule.		
Smoked Bacon—Four sides mild cured in Wiltshire style with ham attached	7	9
Pale Mild Bacon—Four sides mild cured in Wiltshire style with ham attached	6	8
Bacon and Hams Smoked and Pale Dried—Two sides of bacon smoked and two sides of bacon pale dried and two hams smoked, and two hams pale dried, the weight of the sides not less than 56 lbs. and not more than 68 lbs. each, the hams not less than 12 lbs. or more than 20 lbs. each	5	4
Colonial Bacon—Four sides	4	13
HAMS—		
Pale Dried—Four hams, long cut of winter or spring cure not less 14 lbs. weight	7	7
Pale Dried—Four hams, long cut of winter or spring cure, over 14 lbs. weight	9	8
Smoked Hams—Four hams, long cut, mild cured, not over ten weeks cured, not over 15 lbs. weight	7	6
Pale Dried Hams—Four hams, long cut, mild cured, not over ten weeks cured, over 15 lbs. weight	8	7
Ham cured in the Farmhouse or Home—Dealers and Professional Bacon Curers not eligible	3	0
Ham, Home Cured, open only to members of Women's Institutes	3	—
Selling Class for Hams, any variety, two hams	13	8
	<hr/> 76	<hr/> 70
	<hr/>	<hr/>

BACON PIGS.

Six pigs of any pure breed to be killed and cured at Messrs. C. & T. Harris, Calne, Wilts., and afterwards exhibited as cured bacon, at the Dairy Show (1925, 24 pigs), (1926, 30 pigs) ...	4	5
Two pigs of any pure breed (1925, 20 pigs) (1926, 18 pigs) ...	10	9
Two pigs, "First Cross" (1925, 10 pigs) (1926, 20 pigs) ...	5	10

The three classes that are of outstanding importance in the Bacon and Ham department at the Dairy Show are those for the six pure bred pigs, two pure bred, and two pigs from the first cross, the pigs having been sent to Calne, Wilts., for the purpose of being all killed and cured at the same time by Messrs. C. & T. Harris, who since the creation of these classes, have in the most painstaking and thorough manner carried out the whole process, from killing the pigs to delivering the cured sides in the Gilbey Hall at the Dairy Show.

The pigs sent for the 1925 competition were on the whole a good lot. In the pure breeds the outstanding improvement, both from a bacon curers and a breeder's standpoint, was to be found in the Gloucestershire Old Spots, the Large Blacks were on the small side, but of fine quality. Berkshires were small, but of excellent quality and were good weighers for their size, while the Wessex were all that one could desire as to size and quality, but in the class for six animals the majority were gilts. The Large Whites did not seem to have matured as bacon pigs in a given time, as the other pure bred pigs did. In the class for cross-bred animals, all were ideal bacon pigs, Lord Bledisloe's pair of Large White and Large Black being first, and Mr. H. H. Pickford's pair of the same cross following. In passing it is interesting to note that these four animals when killed and cured confirmed the impressions formed of them when alive.

The 30 pigs sent for the purpose of competing in the class for six pigs of any pure breed at the 1926 Dairy Show, were considered the best lot of pigs entered for this class. It is also a notable fact that in 1925 there were six animals having seedy cut, but in 1926 the judges could not find a single side affected with this fault.

The first cross pigs, as in 1925, were a real good lot. Mr. H. H. Pickford's excellent pair, and Lord Bledisloe's of the same cross as the animals they exhibited last year. Large White and Large Black were first and second, thus we find these exhibitors change places, but win with animals of precisely the same cross.

The Council of the British Dairy Farmers' Association, feeling that it was their duty to do all that was within their power to further the industry of pig farming, which is so closely associated with that important industry of the dairy farmer, cheesemaking, decided that instead of paying the breeders and feeders of the pigs sent for competition after the next Dairy Show, the pigs should be paid for at market price immediately after being killed so that the exhibitors should promptly receive the full current value for their animals as bacon pigs.

Exhibitor's Name.	Entry No.	No. of Pigs.	Breed.	Average Age.		Average Live Weight.	Live Weight.	Dead Weight.
CLASS 82.				Months.	Days.	lbs.	lbs.	lbs.
Large Black Pig Society ...	1013	6	Large Black ...	6	13	198.5	1191	938
Wessex Saddleback Pig Socy. ...	1014	6	Wessex Saddleback ...	7	3	200.0	1200	947
British Berkshire Pig Society ...	1015	6	Berkshire ...	6	27	145.3	872	673
Gloucester Old Spot Pig Society ...	1016	6	Gloucester Old Spots ...	6	14	204.8	1229	987
CLASS 83								
Major-Gen. R. L. Mullens, C.B. ...	1017	2	Large White ...	7	2	191.5	383	291
J. Pierpont Morgan ...	1018	2	Large White ...	7	7	174.5	349	273
J. Stanley Corby ...	1019	2	Large White ...	6	27	211.5	423	335
A. Hiscock ...	1020	2	Berkshire ...	6	23	187.5	375	299
W. White & Sons ...	1021	2	Large White ...	7	7	190.5	381	295
Bennett & Howard ...	1022	2	Gloucester Old Spot ...	6	8	209.0	418	339
Spencer, Son & Hancock ...	1024	2	Large White ...	7	3	196.0	392	316
George H. Eustace ...	1026	2	Long White Lop-eared ...	6	15	188.5	377	295
CLASS 84.								
Lord Bledisloe, K.B.E. ...	1027	2	Lar. White & Lar. Black ...	7	2	204.5	409	314
Major-Gen. R. L. Mullens, C.B. ...	1028	2	Mid. White & Lar. White ...	6	23	160.5	321	251
W. White & Sons ...	1029	2	Lar. White & Mid. White ...	6	21	181.5	363	277
Australian Farms Training Col. ...	1030	2	Lar. White & Lar. Black ...	6	4	177.0	354	277
Herbert H. Pickford ...	1031	2	Lar. White & Lar. Black ...	6	22	204.5	409	314

Dairy Show,

Exhibitor's Name.	Entry No.	No. of Pigs.	Breed.	Average Age.		Average Live Weight.	Live Weight.	Dead Weight.
CLASS 82.				Weeks.	Days.	lbs.	lbs.	lbs.
Essex Pig Society ...	1047	6	Essex ...	31	3	190.5	1143	881
Gloucester Old Spot Pig Society ...	1048	6	Gloucester Old Spot ...	31	3	237.8	1427	1137
Large Black Pig Society ...	1050	6	Large Black ...	31	3	207.8	1247	973
Wessex Saddleback Pig Society ...	1051	6	Wessex Saddleback ...	31 approx.		186.6	1120	865
CLASS 83.								
Major-Gen. R. L. Mullens, C.B. ...	1052	2	Large White ...	31	4	175.0	350	271
J. H. Ismay ...	1053	2	Berkshire ...	29	5	170.5	341	266
W. H. Middle ...	1055	2	Gloucester Old Spot ...	31	3	194.5	389	308
Spencer, Son & Hancock ...	1056	2	Large White ...	29	5	176.0	352	269
Standen Estates, Ltd. ...	1057	2	Large White ...	31	2	172.5	345	267
J. Rackley & Sons ...	1058	2	Large White ...	29	4	205.5	411	336
Bennett & Howard ...	1060	2	Gloucester Old Spot ...	30	1	215.0	430	344
CLASS 84.								
Bledisloe Farms, Ltd. ...	1061	2	Lar. White & Lar. Black ...	31	4	211.0	422	344
Major-Gen. R. L. Mullens, C.B. ...	1062	2	Mid. White & Lar. White ...	31	4	164.0	328	258
J. A. de Rothschild ...	1063	2	Lar. White & Berkshire ...	31	3	198.5	397	317
Major J. A. Morrison ...	1064	2	Tamworth & Berkshire ...	31	3	183.0	366	276
J. H. Ismay ...	1065	2	Lar. White & Berkshire ...	30	—	201.0	402	319
H. H. Pickford ...	1066	2	Lar. White & Lar. Black ...	31	3	212.0	424	325
Hasler & Co. ...	1067	2	Large White & Essex ...	31	—	208.0	416	329
D. B. Rose ...	1068	2	Lar. White & Mid. White ...	31	1	179.5	359	283
A. Duckham ...	1069	2	Long Lop Cornish White and Wessex Saddleback ...	26	4	185.5	371	293
Cathedral Dairy Co. ...	1070	2	Lar. White & Mid. White ...	28	4	185.0	370	295

Per cent. Loss Live Weight to Dead Weight.	Bacon Weight.	Per cent. Loss Live Weight to Bacon Weight.	Correct Proportions of Cuts or joints including Thickness or Sreaky.	Suitability of Side, Quality of Meat, Bone, &c.	Fat on Back, Lean Meat, Proportion of Lean to Fat.	Firmness of Fat.	Fineness of Rind.	Deduct for Bad Belly to 15 Points.	Total. 100 Points.	Awards.
lbs.	lbs.	lbs.	30 points	20 points	30 points	15 points	5 points			
21.2	690	42.0	20	15	18	10	4	—	67	Reserve.
21.0	704	41.3	20	18	20	15	5	—	78	
22.8	503	42.3	15	10	15	15	5	—	60	
19.6	731	40.5	25	18	25	15	5	5	83	
										1st, Whitley Cup, Res. Harris Cup.
24.0	217	43.3	20	15	20	10	5	3	67	Reserve.
21.7	201	42.4	18	12	18	12	3	3	60	
20.8	245	42.0	22	15	20	12	3	—	72	
20.2	226	39.7	25	15	23	12	4	3	75	
22.5	218	42.7	18	15	18	10	4	3	62	1st, Harris Cup, Beale Cup, 2nd, 3rd.
18.8	252	39.7	28	20	25	15	5	5	88	
19.3	232	40.8	20	18	22	15	5	—	80	
21.7	216	42.7	20	18	22	12	4	—	76	
23.2	233	43.0	25	18	22	15	5	—	85	1st, Bledisloe Cup.
21.8	191	40.5	20	15	20	12	5	—	72	3rd.
23.6	203	44.0	18	16	18	12	4	—	67	Reserve.
21.7	199	43.7	15	12	15	12	3	—	57	2nd, Reserve Bledisloe Cup.
23.2	236	42.2	25	18	20	8	5	—	76	

1926.

Per cent. Loss Live Weight to Dead Weight.	Bacon Weight.	Per cent. Loss Live Weight to Bacon Weight.	Correct Proportions of Cuts or joints including Thickness or Sreaky.	Suitability of Side, Quality of Meat, Bone, &c.	Fat on Back, Lean Meat, Proportion of Lean to Fat.	Firmness of Fat.	Fineness of Rind.	Deduct for Bad Belly to 15 Points.	Total. 100 Points.	Awards.
lbs.	lbs.	lbs.	30 points	20 points	30 points	15 points	5 points			
22.9	685	41.8	25	16	24	14	5	—	84	1st, Harris Cup, Whitley Cup, Reserve.
20.3	842	40.9	30	20	30	15	5	—	100	
21.9	726	41.7	25	18	25	15	5	—	88	
22.7	646	42.3	20	15	20	12	4	—	71	
22.5	202	42.2	24	18	25	13	5	—	85	3rd.
21.9	198	41.9	23	16	24	14	4	—	81	Reserve.
20.8	222	42.9	30	20	28	15	5	—	98	1st, Beale Cup.
23.5	204	42.0	23	15	20	13	4	—	75	
22.6	194	43.7	20	16	20	12	4	—	72	
18.2	253	38.4	20	16	22	14	4	—	76	
20.0	254	40.9	25	17	26	13	5	—	86	2nd.
18.4	262	37.9	24	15	28	15	5	—	87	2nd.
21.3	191	41.7	25	15	25	10	4	—	79	
20.1	243	38.7	24	16	22	12	5	—	79	
24.5	206	43.7	24	15	24	15	4	—	82	
20.6	240	40.2	26	15	25	12	4	—	82	1st, Bledisloe Cup.
23.3	239	43.6	30	20	28	10	5	—	93	
20.9	237	43.0	24	14	25	10	4	—	77	
21.1	212	40.9	24	13	23	12	5	—	77	
21.0	213	42.5	22	14	24	10	4	—	74	3rd.
20.2	226	38.9	25	16	25	12	5	—	83	

ANNUAL REPORT OF THE CONSULTING CHEMIST.

T. J. DRAKELEY, PH.D., M.Sc., F.I.C., F.C.S.

The number of samples submitted by the members for examination during the year 1926 was small, but were varied in character. Samples of cream were received for the estimation of fat and boric acid, and a number of samples of water were analysed to determine whether they were fit for drinking and dairy purposes. Samples of guano and manures were also submitted for test. However, the majority of the samples were of milk for routine analysis, and most samples were well above the presumptive limits.

For the past two years the Council of the Association has been in communication with the Ministry of Health with regard to the method of reporting analyses of milks by the Public Analysts. It was pointed out that in certain areas the certificate on the summons issued under the Sale of Food and Drugs Acts for a milk containing, say, 2.83 per cent. of fat, and 7.70 per cent. of solids not fat stated that the milk contained 9.4 per cent. of added water, and was 5.66 per cent. deficient in fat. On the other hand, the summonses issued in other districts would merely report such a sample as containing 9.4 per cent. of added water. The omission of any reference to a deficiency of fat was based upon the fact that milk containing 3 per cent. of fat would possess a fat content of 2.74 per cent. after being diluted with the stated amount (9.4 per cent.) of water. Consequently as the actual sample contained 2.83 per cent., there was no evidence of an abstraction of fat as well as an addition of water.

A certificate made out in the former method implies a double offence of abstraction of fat and addition of water whereas the analytical figures only suggest one offence, namely, addition of water.

The Minister, as a result of representations, has in consultation with the Society of Public Analysts issued a circular (No. 752) recommending a more uniform procedure of wording the certificates to show how much, if any, of the deficiency of the fat is presumed to be due to abstraction *after allowance has been made for the effect of the added water*.

PRIVILEGES OF MEMBERSHIP.—It should be recalled that the Council of the Association extended in 1926 the chemical privileges of members by materially reducing all the fees for chemical analyses of samples submitted for examination. In addition, each member whose subscription for the current year had been paid was entitled to one analysis of a dairy product free of charge. These increased privileges will remain in operation for the forthcoming year, and should be an additional inducement for farmers to become members of the Association. The full list of privileges will be found on other pages of this issue. The Association naturally needs additional members to support and extend the work it is doing on behalf of the Dairy Farming community.

THE DAIRY SHOW OF 1926.

By SAMUEL R. WHITLEY.

IN spite of many minor inconveniences caused by the Coal Strike, preparations for the Dairy Show to be held October 19th—22nd were well under way, when an outbreak of Foot and Mouth Disease within the 15 miles radius of the Agricultural Hall looked like preventing all cattle from being present, but fortunately there was no second case, and the restrictions were removed just in time.

The Council decided that an inspection of all cattle was desirable, and this was carried out about 14 days before the opening of the Show. For the first time each exhibitor could choose whether his animal should be twice or thrice milked during the 24 hours, and out of a total cattle entry of 420, 161 were entered as Thrice-Milkers, though several reverted to twice milking when the Milking Trials were over. Throughout the Show and afterwards in the Press, the controversy for and against Thrice-Milking raged, and probably the old adage :—

“He that complies against his will,
Is of his own opinion still,”

is as true as ever.

The Council did not lightly make the change—they knew that it must involve considerably increased expense, and add to the labours of a large staff of Judges and Stewards, whose work is arduous and, of necessity, done under high pressure. They were influenced by the simple fact that cows yielding 7, 8 and 9 gallons in the 24 hours demand milking more than twice if cruelty is to be avoided.

For 50 years the Association has sought to increase and improve the average yield of the Dairy herds of this country by awarding its very substantial prizes to individual animals which show their excellence at the pail, and during that period the Science of Breeding and Feeding has caused the yields of the winning cows to practically double themselves.

Unless the Council made Thrice-Milking optional, they were faced with the rather humorous position of being in danger of seeing a rival Dairy Show started, to cater for those animals which were excluded from their Show because they were giving too much milk.

So far, the Council has expressed no opinion on the Economics of Thrice-Milking in the home—circumstances are so widely different that such a course would be unwise, but the special pleaders who hold that thrice-milking is bad for the *constitution of the animal* should remember that the calf in nature milks many times in 24 hours and thrice-milking, in spite of all the extra trouble caused, is really one step back towards Nature, and so it is likely to tend towards increased health and constitution of the cow, rather than the reverse.

Each year these Competitions tend to become more complicated

and it is all to the good that skilled advocates should thrash out the pros. and cons. of such questions, pointing out the direction in which this or that action is tending, and so reminding those responsible of their bed-rock aims and purposes.

In another direction the Council are faced with an analogous position by those advocates who hold that cows, to be eligible for the supreme awards at the top Dairy Show, should have shown their freedom from tuberculosis; they point out that a certain number of cows from "Tuberculin Tested" Herds are now unable to compete because they may not mix with *untested* animals—here again there is the danger of a rival Dairy Show being held for animals, which are too good for the London Dairy Show, because they have shown their freedom from tuberculosis. The Council has discussed the question on many occasions and eventually appointed a strong Committee to make recommendations; these are not yet available.

The pressure on the available space was about as usual amongst the cattle and considerably greater in the produce section. The recent increase in the New Inventions entered for the Society's Medals was well maintained.

CATTLE.

The most important parts of the Dairy Show are the Milking Trials and Butter Tests, and full reports of them appear elsewhere in this Journal, but it is interesting here to note that a discussion arose during the Show with regard to the number of mathematical calculations which were involved in making the various class awards in the Milking Trials. The stupendous figure of 13,952 different mathematical operations was estimated to be the total for the Show of 1926. This figure does not include the mathematical calculations necessary for the award of any of the cups or trophies other than the National Milk Cup. That this gigantic task is completed in so short a time and with such extraordinary accuracy bears testimony to the remarkably efficient organisation of the British Dairy Farmers' Association for carrying out the calculations.

The entries for the three classes for Pedigree Dairy Shorthorns were considerably more numerous than last year, and the greatest strength was in the younger classes.

The Judges agree that the general quality was well up to standard, but it was regrettable that from one cause and another a large proportion of those entered, could not put in an appearance—this remark applies to nearly all the cattle classes—the total entries being about 449 cows, with only 233 present.

The Non-pedigree Dairy Shorthorn Classes were not up to standard in quantity or quality—in the cow class the entries were the same as last year, but the heifer class showed a considerable reduction and only one heifer was able to parade.

The Lincoln Red Shorthorn Classes had entries much the same

as previous years, but both classes were small owing to so many entered not being exhibited. The winning cows and heifers were of a very good type of the breed.



Photo. Sport & General.
British Friesian Cow "Lavenham Seabreeze," exhibited by Strutt & Panker Farms, Ltd., 3rd Inspection, 1st Milking Trials, The British Dairy Farmers' Association Supreme Individual Championship Challenge Trophy. The "Barham," "Shirley" and "Spencer" Challenge Cups.

The numbers of British Friesians were about as usual, the classes containing some excellent dairy cattle with good udders. For the

first time in the history of this Show a 9-gallon cow put in an appearance—this was Messrs. Strutt & Parker's "Lavenham Seabreeze." She was Third on Inspection, First in the Milking Trials with the wonderful record of 194.5 points, and Second in the Butter Tests, making $3\frac{1}{4}$ lbs. of butter, and was awarded the Supreme Championship of the Show.

Another extraordinary cow in this class was Messrs. White & Sons' "Muntham Troublesome," which was out of the picture for Inspection, but gave nearly 7 gallons of milk with over 5 per cent. of butter fat, making $3\frac{1}{2}$ lbs. of butter, thus gaining Second Prize in Milking Trials and First Prize in the Butter Tests—what would our fathers and grandfathers have said to such yields?

The Friesian Heifers were more numerous than last year, and reported on by the Judge as full of milk and promise.

The Friesians eventually won the Bledisloe Trophy.

The entries of cattle from Devon were much as last year, but they suffered disaster owing to the local restrictions against Foot and Mouth Disease—one cow in the South Devon Class managed to get through and scored 165.9 points in the Milking Trials, a score which a few years back would have swept the deck. She was awarded First on Inspection, First in Milking Trials, and First in Butter Tests.

Red Polls put up a very creditable display and are reported as steadily improving their udders and general milking qualities—it was noticeable that the winners came from far and wide, but not from their home, East Anglia. They are spreading and doing their whack for the Milk Supply.

The two classes for Blue Albions were not large, but of exceptional merit—certainly a credit to the breed after the hard luck which they have experienced at this Show since they began to exhibit—one cow, Mr. B. W. Smith's "Elsenham Jessie," managed to get 156.8 points in the Milking Trials, thus leaving Pedigree and Non-pedigree Shorthorns behind.

There were only 4 entries in the Welsh Black Cow Class, two of which were present—the Judge reports them as good in quality.

Ayrshires again were well to the fore—what a contrast to 20 years ago, when the writer was one of the Judges of the Milking Trials it was the usual thing then to write them off as "No Award, not up to Standard." Nowadays the number of entries keeps about steady and a superb collection of Dairy Cattle is forward each year. Again it was evident that the Scotchmen meant having a good fling for the Bledisloe Trophy, but after three successive wins, they had to take second place to the Friesians which won solely on Milking Trial points. Nevertheless, the Ayrshire record was a magnificent one, an average of 165.6 points for the first four in the Milking Trials. How much of this splendid achievement is due to the work of the late Mr. John Speir, a much valued member of the British Dairy Farmers' Association Council, who created a real enthusiasm for Milk Recording in Scotland, some 20 years before England woke up to its importance?

Practically all the Ayrshires were milked three times per day in the Trials, but a large proportion returned to twice-milking when the Trials were over. The Ayrshire Heifers were all an excellent lot, and should give the Ayrshire men a good run for the Bledisloe Trophy another day.

Guernsey entries were not quite so numerous as of late, but there was good quality in each of the three classes. The Misses Hargreaves' "Lemon Gadfly" with 148.4 points in the Milking Trials and over 3½ lbs. of butter in the Butter Tests must have done a record for Guernseys at the Dairy Show. The Judge reports the heifers as a particularly good lot, promising well for the future.

Jersey entries were materially up on last year, and as usual made a really fine display, with some outstanding animals from the breed point of view present. The writer remembers that Jerseys usually were well ahead of Guernseys in Milking Trial points, but the Guernseys are now pulling up and Jerseys must soon look to their laurels.

In some recent years the Kerries have put up strong classes at the Dairy Show, but this year their numbers were rather seriously down, there being only 5 entries in the cow class, but the heifers were one better than last year. The general Dairy characteristics were well maintained, and the points gained in the Milking Trials were distinctly good—the cow class averaging over 5 gallons; the heifers were a very good lot.

The Dexter Heifer Class had to be cancelled through lack of entries, and the cows were only half last year's number, but the First prize cow was very good, with the Second Prize a useful animal.

BULLS.

The total entries of Bulls fell from 37 in 1925 to 28 in 1926—the falling off was mainly in the class for young Dairy Shorthorn Bulls.

That the Bull entries should tend to decrease is hardly surprising considering the poor quarters allotted to them—a suggestion, that the ordinary classes for Bulls be eliminated and the money devoted to an extension of the "Robert Mond" Challenge Shield idea, viz., judging Dairy Bulls by the milk yield of their progeny, has been before the Council and stands to be favourably considered for the 1927 Show. Four good animals out of six entries were forward in the Shorthorn Class for Bulls born prior to August 1924, and the Judges speak very favourably of those present in the Class for young Shorthorn Bulls.

Two good Bulls appeared in the Class for Friesians—the winner showed style, strength and size and the Reserve was but little behind.

Two Red Poll Bulls were judged and both considered worthy of being put into the prize-money.

Of seven Jersey Bulls entered four appeared before the Judge, and were highly thought of—the First Prize being particularly good about the neck and shoulder—with good length and a well set tail.

GOATS.

During recent years the number of Goats entered has shown some tendency to decline, but at this Show there were 78 entered

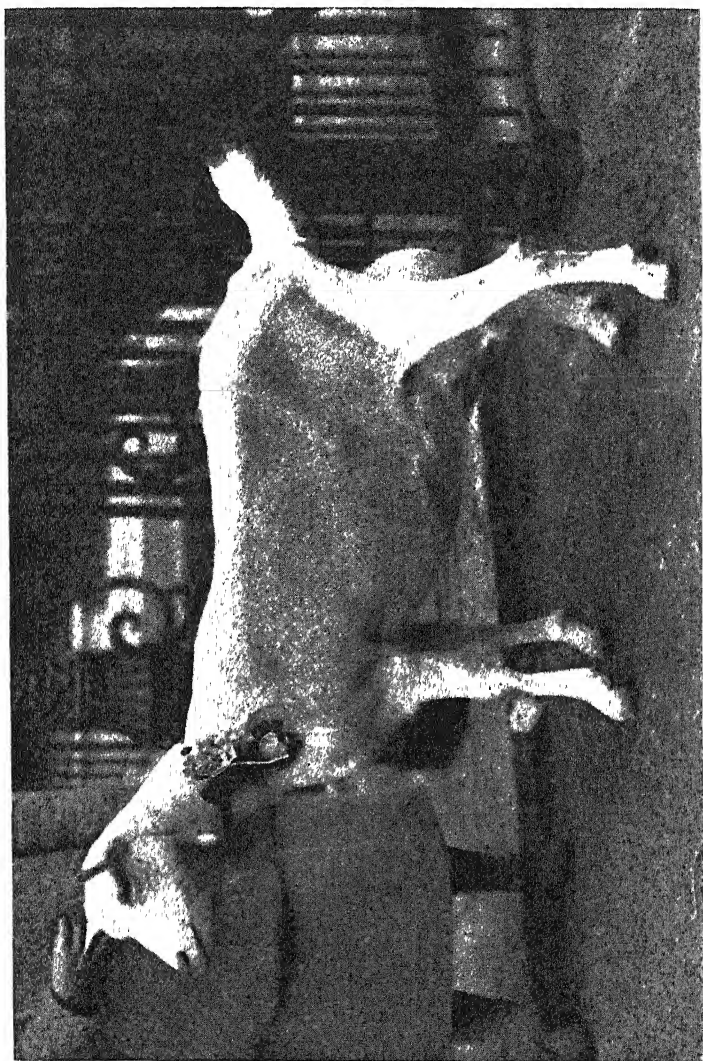


Photo. Sport & General.
British Saanen Goat "Atherstone Collette," exhibited by Miss C. A. M. Booth, 1st Inspection, 1st Milking Trials, the "Baroness Burdett-Coutts," "Trenedda Selene," and "Dewar" Trophy.

against 48 in 1925, the bulk of the increase was in the "recorded" class, which had to be cancelled last year. Though 20 were absent

owing to the Foot and Mouth Disease scare and illness, the Judge reports a very good Show of Goats and Goatlings. The best Goat in the Show was Mrs. Abbey's "Didgemere Dream" winning the British Goat Society's Ten Guinea Perpetual Challenge Cup and along with two other of Mrs. Abbey's Goats, "the Riding Cup." The Judge suggests, "that Goats over two years old should only be allowed in the Inspection Classes at the Dairy Show, if they have competed in the Milking Classes. This would be coming into line with the cows.

CHEESE.

There was a record entry of Cheese and the increase was largely amongst the bulky varieties, so considerably more space was required and they could only be staged with difficulty—the Gilbey Hall was so crowded that it was impossible to stage the Dead Poultry there and room had to be found for a large exhibit of Dead Poultry in the Galleries, thus reverting to an old custom, though hardly a desirable one as the atmosphere in the Galleries can never be so fresh as that in the Gilbey Hall.

Stiltons.—The number of entries was much as usual—the season is reported as having been a very awkward one, due to the varying temperatures, so the Cheeses generally have not turned out so regular in quality as last season; also the glut of milk has tended towards quantity rather than quality—all things considered, the exhibits were very satisfactory, though not quite so forward in condition as is usual at this time of year—the later made are however showing more promise.

Cheddar Truckles.—A very good exhibit of Truckles, several entries being of exceptional quality, and it was most difficult to place the leaders in order of merit, the First Prize winner being equal to the Champion Cheddar except in appearance.

The class for Cheddar (4 Cheeses) brought an increased entry—they were on the whole a good lot of Cheese and the First Prize in this Class was eventually awarded the N.K.J. Challenge Cup for the best exhibit of Cheddar Cheese—the same Dairy (Mr. S. J. White of Ilchester) had been winning First and Champion at many of the West of England Shows. Scotch Cheddars carried off Second and Fifth Prizes and one Very Highly Commended, while the bulk of the honours went to the West of England. The Class for Cheddars (12 Cheeses) was a large one with 46 entries, but they are reported as rather a mixed lot of cheese, many of them cutting much too firm, not showing enough quality or silkiness in texture, while many were too immature. The bulk of the Honours again went to the West of England.

Colonial Cheddars showed a largely increased entry, but the Judge reports them as on the whole, "not a very good lot," being generally poor in quality and uninteresting, while most of the Cheese

were of good appearance—the only exhibits showing fat were the Prize winners and the commended ones—some of the others were fair in quality, but unclean in flavour.

Cheshire Cheese.—Practically all the Classes show a largely increased entry, and this is particularly noticeable in the class for 12 Cheeses and also in the Novice Class.

The Fullwood and Bland Challenge Cup was won by Mr. O. Hesketh of Winsford, for his exhibit in the 12 Cheese Class.

The class for *Factory Cheese* (10 Cheeses of not less than 28 lbs. each, any variety) brought 9 entries—the winning exhibit came from Scotland, but the bulk of the exhibits were from Shropshire, and the West of England.

The class for *Leicester* (4 Cheeses) was a very encouraging exhibition, the Cheese shown being of excellent quality and condition, it was not an easy matter to allot the awards, the winner came from Rugby, but the Second and Third Prizes went to Educational Centres far distant from the home of Leicester Cheeses.

The class for *Lancashire* (4 Cheeses) brought a slightly increased entry of cheese very typical of the cheese turned out in Lancashire, the samples were very rich, free cheese, open in curd and of good quality suitable for toasting.

The *Derby* class was said to be poor and indifferent, hardly any exhibit presenting true Derby characteristics.

There was a falling-off in the entries of both *Double* and *Single Gloucester*, the former contained two very fine exhibits, but some of the rest were sour and hard—on the other hand the *Single Gloucesters* were a fine class, only weak in numbers; they were true to character and of clean, sound flavour, the First Prize winner being of outstanding merit.

The *Caerphilly* class had a reduced entry of 14 against 20 in 1925, those awarded prizes were of very good quality and character, but some of the exhibits were not the right shape and verging on Cheddar Loaf.

There was only a poor entry of *Wensleydale Cheese*, with one absentee—the First Prize cheeses were a very fine lot, uniform throughout, although the true Wensleydale coat had not fully developed.

Both the classes for *Smallholder Pressed Cheese* (Long Keeping and Quick Ripening) were seriously down in numbers—the former were an excellent class, the general appearance and finish being very good—the latter (Quick Ripening) was a good class, but the competition not so keen as in the former class, the First Prize was excellent in flavour.

The class for *Small Cheddars*, open to pupils who have attended County Travelling Cheese Schools during 1925 and 1926, brought a very mixed lot of Cheese, but the First Prize winner was a very nice lot indeed.

The corresponding class for *Small Cheshires* was well filled, but the exhibits called for no special comment.

The Inter-County Competition for the best collection of *Small-holder Cheeses* had to be cancelled owing to insufficient entries, this is specially to be regretted as a Champion Shield is available in addition to handsome prize money.

The class for *Cream Cheese*, made from pure cream only, was a good one with 17 entries.

Unripened Soft Cheese, other than Cream Cheese, made direct from milk brought an increased entry, but called for no special mention.

The class open to Women's Institutes for a *Collection of Produce* brought diminished entries—9 as against 18 in 1925— the purpose of this class is to encourage the sending of farm produce through the Parcel Post, so exhibits had to be sent through the post and were judged on points as they arrived. The exhibits on the whole were well packed, but one package was broken in transit, partly due to its containing a heavy glass jar containing cream—two packages had one egg each broken. The quality of the produce was very good, and in the First Prize lot the butter, eggs and cream were excellent. The Judge endorses a suggestion made by those who understand the difficulties, that if the collection was reduced to 1 lb. of butter, 1 lb. of cream, 1 dozen eggs and a dressed chicken ready for cooking, there would be more entries, as it is felt that the present requirements of 2 lbs. of butter, 1 lb. of cream and 2 dozen eggs is excessive for small farms and holdings at this time of year.

BACON AND HAMS.

The entries in the Bacon Classes showed a small improvement, but the new class for Rolled Bacon cured on the farm or in the home had to be cancelled owing to lack of entries—the other classes are reported by the Judges as of very good Bacon, well butchered and smoked— they also comment on the great improvement shown in the class for Colonial Bacon, the sides being better shaped, heavier and more suitable for the trade of this country.

The Hams were very good, but there was too much bloom on some for the weight and age.

BACON PIGS.

The class for Pig Breed-Societies (6 pigs to be shown as cured Bacon) brought 5 entries against 4 in 1925. The pure bred class for Individuals (2 pigs to be shown as cured Bacon) brought 9 entries against 10 in 1925. The cross-bred class for Individuals (2 pigs, of the first cross; to be shown as Bacon) brought 10 entries against 5 in 1925.

It is interesting to note that the Gloucester Old Spots again won the Whitley Challenge Cup for the Breed entries, and also the Beale Cup

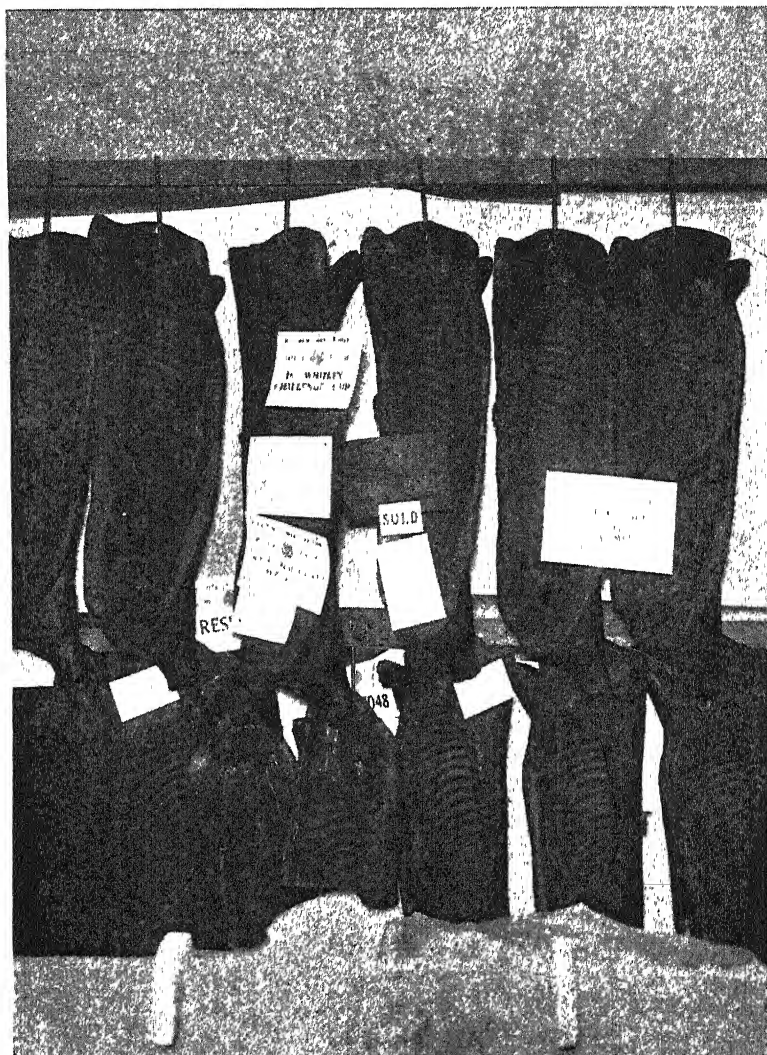


Photo. Sport & General.

Sides of Bacon exhibited by the Gloucestershire Old Spots Pig Society, Winners of the "Whitley" and "C. & T. Harris" Challenge Cups.

for Individual entries of pure breed, while in the Individual first-cross class, the First and Second Prizes again went to the Large White—Large Black Cross.

BUTTER.

Speaking generally, the total number of Butter entries compares favourably with that of the post-war Shows, being 10 more than 1925, but 53 below the post-war record of 1924. In the 2lb. classes there is a considerable falling off; in the more commercial classes for 12 lbs., 24 lbs., 28 lbs., and 56 lbs., there is a slight tendency to increase, and in the Colonial classes for one box of 56 lbs., there are very large increases.

The 2lb. Classes of Butter were very good, but with a tendency towards lack of flavour—in the novice class for farmers, their wives and daughters (occupying less than 100 acres) a lack of finish is noticed—in another class the Judge commends the texture and moisture, but finds the appearance the weakest point, with a proportion of the entries distinctly “off” in flavour.

The quality of the various lots of Commercial Butter was very creditable. Some difficulty was experienced in allotting the winners owing to the uniformity of the exhibits. The flavour of these Butters was outstanding, and reflects a high standard of education in the treatment of the cream and also in the practice of Churning.

In the Colonial Butter the bulk of the Exhibits came from Australia with Canada a good second, and South Africa a poor third, New Zealand and other Colonies were unrepresented, practically the whole of the awards went to Australia.

One Judge reports a fair average lot of Butter for the time of the year—nothing stands out as excellent, and very few lots to be graded as First Class, but, of course, best quality is not expected at that time of year.

The other Judge says, the exhibits are practically all of a high standard, the best samples being very close to one another and very little to choose between them; he does not note any outstanding defect, but here and there there is a slight unevenness of colour and slightly watery texture. Packing and condition were mostly excellent.

The class for “Butter made up in most attractive form for table use” brought 11 entries, some of which were overdone and not attractive or appetising; the dishes were overfilled and too much attention given to elaborate decoration, all manner of fancy forms and designs which generally take away from the flavour and cause deterioration, but the First and Second Prize exhibits were good in flavour and neatly made up.

In the class for Fancy or Ornamental Butter there were two exhibits well deserving First and Second Prizes.

CREAM.

The entries of Clotted Cream were about normal, but a considerable drop when compared with those of 1925, the quality and also that of the Cream other than clotted, called for no special comment.

BOTTLED FRUITS.

The entries show a good recovery to normal numbers after a rather serious drop last year. For general all round excellence they were the best that have yet been staged, and it was very difficult to decide on the winners, packing, grading and general appearance being very fine.

The Demonstrations in Fruit and Vegetable Bottling carried out throughout the Show were as popular as ever, and eventually serve a useful purpose.

HONEY.

The total entries show a considerable increase when compared with last year, but are still only about half those of the record year of 1914, the season was not particularly favourable, so this must be considered satisfactory—the bulk of the increase was for Colonial Honey, nearly all of which came from Canada—all the awards, as last year, were annexed by the Ontario Beekeepers' Association.

Roots.

There was a magnificent display of Roots, the numbers being almost a record. As usual the bulk of the prize money goes to Wales, and one exhibitor Mr. W. Watts, of Ty Draw, Cowbridge, Glamorgan, annexed all the First Prizes for Mangolds, along with a First for Marrow Stem Kale and a Second for the Collection of Roots, in each case he used Suttons Seeds, but one wonders whether it is the man, the farm, the seeds or the manure, which so commands success.

NEW INVENTIONS.

These were so numerous and interesting that a special report of them will be found elsewhere in this Journal.

JUNKET MAKING CONTESTS.

The popularity of the Junket Making Contests was just as evident as in previous years, and the product sold like hot cakes—why is this method of getting more milk consumed not exploited to a far greater extent?—outside Devonshire the Junket is far too rare.

BUTTER MAKING CONTESTS.

Entries were about normal and quite enough for the accommodation, good work generally was done, especially by the prize winners—the novices, not unexpectedly showed some amount of

nervousness—the competition was as keen as ever and the final Championship Contest brought so many entries that it was well-nigh



Photo. Sport & General.

Miss J. PRITCHARD, Winner of the Champion Butter-making Contest.

impossible to accommodate them all—it is suggested that the winners of previous years should be more restricted.



Photo. Sport & General.
Miss N. JONES, Winner of the Championship Milkers' Contest.

MILKERS' CONTEST.

Covered Buckets and more strict attention to all the details which make for Clean Milk, do not seem to have frightened away the entrants from these classes, but it has not yet been possible to achieve the Council's desire to make these contests more of an Inter-County Contest.

COW-JUDGING COMPETITIONS.

There were 9 entries in the competition open to Students from Agricultural Colleges, Farm Institutes and County Council Classes, being one more than last year—the winners this year were the Cornwall County Council Classes, Truro, with the Buckinghamshire County Council, Aylesbury, reserve.

The Cow-Judging Contest, open to members of the Young Farmers' Clubs, brought 4 entries, and raised a considerable interest amongst the public.

The Silver Challenge Cup was won by the Sussex Baby Beef Club for the second consecutive year.



THE DAIRY SHOW MILKING TRIALS OF 1926.

By T. J. DRAKELEY, Ph.D., M.Sc., F.I.C., F.C.S.

THE Milking Trials for the 1926 Show probably aroused more discussion than at any previous Show, and were watched with more than the usually great interest they always evoke. This was due to a decision of the Council that cows might be milked twice or thrice daily at the option of the owners, and that all animals would be equally eligible to compete for the various awards and trophies, irrespective of the number of times they were milked.

Naturally, such a departure from all previous procedure was met with both violent opposition and welcomed acceptance, and the Council, as soon as they have acquired sufficient statistical information, will, no doubt, review the position in order to ensure that the competition between cows milked twice and those milked thrice will be upon an equitable basis. Speaking simply as a Member of the Association, it is difficult to understand the position which exists between those advocating milking twice and those in favour of three-times milking. Thus, at the Annual General Meeting, milking twice was warmly defended on economic grounds, and it was maintained that the awards at the Dairy Show should pick out, not necessarily the cows with the highest yields and points, but those cows which yield milk in the most economic manner. How the scheme was to be worked by the judges was not clear. However, it was unfortunate that at the General Meeting there were no ardent protagonists of the three-times milking, because precisely the same strong principle has been used by them in favour of their methods. Indeed, the writer has heard members of the British Dairy Farmers' Association advance precisely the same so-called "economic" argument in favour of both arrangements for milking, and consequently it would seem that the discussion must be more definitely stated, and that much over-worked word "economic" omitted entirely therefrom before the confusion may be cleared. Indeed, the Council paid much attention to the concrete suggestion that it was almost an act of cruelty to milk the heavy yielding animals only twice daily.

Another innovation at this Show was that the animals milked twice daily were milked at even intervals of 12 hours, whereas on all former occasions the intervals have been 13 and 11 hours respectively.

Allocation of Prizes.—It may be of interest to note that the thrice-milked cows did not secure all the awards in competition with the twice-milked animals, and the following Table gives an idea of the distribution of the prizes between the two sections :—

ALLOCATION OF PRIZES.

No.	CLASS.	ANIMALS MILKED.							
		Twice.				Thrice.			
		No. of Animals in Show	1st.	2nd	3rd.	No. of Animals in Show	1st.	2nd.	3rd.
1	Dairy Shorthorn Cow (Pedigree)	8	1	1	1	2	0	0	0
2	Dairy Shorthorn Cow (Pedigree, 3-5 years)	11	0	1	0	4	1	0	1
3	Dairy Shorthorn Heifer (Pedigree)	19	0	0	1	6	1	1	0
4	Dairy Shorthorn Cow (Non-Pedigree)	6	1	0	0	3	0	1	1
5	Dairy Shorthorn Heifer (Non-Pedigree)	1	No award.				No award.		
6	Lincolnshire Red Shorthorn Cow	2	1	0	0	2	0	1	1
7	Lincolnshire Red Shorthorn Heifer	3	1	0	0	3	0	1	1
8	British Friesian Cow ...	1	0	0	0	16	1	1	1
9	British Friesian Cow ...	1	0	1	0	9	1	0	1
10	British Friesian Heifer ...	1	0	0	0	8	1	1	1
11	South Devon Cow ...	0	0	0	0	1	1	0	0
14	Devon Cow ...	1	1	0	0	0	0	0	0
15	Red Poll Cow ...	6	1	0	1	1	0	1	0
16	Red Poll Cow ...	3	0	1	0	3	1	0	1
17	Red Poll Heifer ...	3	0	1	0	5	1	0	1
18	Blue Albion Cow ...	5	1	1	1	0	0	0	0
19	Blue Albion Heifer ...	3	1	1	0	0	0	0	0
20	Welsh Black Cow ...	1	1	0	0	1	0	0	0
21	Ayrshire Cow ...	0	0	0	0	14	1	1	1
22	Ayrshire Heifer ...	0	0	0	0	12	1	1	1
23	Guernsey Cow ...	4	0	0	1	2	1	0	0
24	Guernsey Cow ...	4	0	1	1	1	1	0	0
25	Guernsey Heifer ...	9	1	1	1	0	0	0	0
26	Jersey Cow ...	12	0	1	1	1	1	0	0
27	Jersey Cow ...	9	1	1	1	1	0	0	0
28	Jersey Heifer ...	11	0	1	1	1	1	0	0
29	Kerry Cow ...	3	1	1	1	0	0	0	0
30	Kerry Heifer ...	4	1	1	1	0	0	0	0
31	Dexter Cow ...	2	0	0	0	1	1	0	0
TOTALS ...		136	13	14	12	97	15	10	11
Total—excluding Classes 5, 11, 14, 18, 19, 21, 22, 25, 29, 30 ...		110	7	9	8	70	12	8	9

The Table shows that 136 animals were milked twice daily and secured 13 first prizes, 14 second prizes and 12 third prizes in the Milking Trials. The prizes secured by 97 animals milked thrice daily were 15 first prizes, 10 second prizes and 11 third prizes. These totals, however, include the results of certain classes (Nos. 5, 11, 14, 18, 19, 21, 22, 25, 29, 30), in which there was no competition between the twice and thrice-milked cows. If the latter classes are excluded from the consideration, the distribution gives 24 prizes amongst 110 animals milked twice, and 29 prizes amongst 70 thrice-milked cows.

The Competition.—It has been contended that the competition between cows milked twice and cows milked thrice daily without any compensation in points to the cows milked twice is unfair. This contention may be perfectly true, and as already mentioned, the Council is anxious to place all the competitions upon a fair basis. However, with the data which has been obtained during the 1926 Show, there appears to be no obvious scheme which would equalise the chances of animals milked twice with those milked thrice daily. Thus, the allocation of prizes does not show the anticipated preponderance of success with the animals milked thrice, and a reference to Table III and the last two lines of Table IV will convince all members that no simple means is yet apparent for the adjustment of points which may finally be made between the two sections of animals.

The Council are watching their experiments with keen interest and will take suitable action as soon as they are certain of the facts. In the meantime, patience and constructive criticism will be welcomed from all members.

Award of Points.—The milking Trials during the 1926 Show were carried out on the same general lines as in previous years. The awards were made on the following scale of points :—

One point for every 10 days since calving, deducting the first 40 days, with a maximum of 12 points.

One point for every pound of milk, taking the average of two days' yield.

Twenty points for every pound of butter fat produced.

Four points for every pound of "solids-other-than-fat."

Deductions are made of 10 points each time the fat falls below 3 per cent., and 10 points each time the "solids-other-than-fat" falls below 8.5 per cent.

Number of Entries.—The number of entries was approximately the same as those for the former Show. Thus, 420 cows and 27 goats were entered in 1926, whereas in 1925, the numbers were 434 and 18 respectively.

Of the 420 cows entered for the Show, four entries were withdrawn, and the details of the 416 remaining animals will be found in column 3 of Table I. From this Table, it will be seen that 256 animals were entered to be milked twice and 160 to be milked thrice daily.

Number of Competitors.—The number of animals competing in the Milking Trials reached 246, and comprised 233 cows ($136^* + 97^\dagger$) and 13 goats. The corresponding figures for the last Show were 226 ($221^* + 5^\dagger$) cows and 16 goats. The details of the entries and the number of animals actually present will be found in Table I.

Number of Breeds represented.—Thirteen distinct breeds were represented at the Show. A new class was provided for Blue Albion Heifers (Class 19) and all entries appeared in the Show Yard. One class (32) for Dexter Heifers was cancelled, due to lack of entries.

* Milked twice daily.

† Milked thrice daily.

Upon reference to Table I, it will be observed that in the classes for South Devon Cows (Herd Book Society) (Class 11), South Devon Heifers (Class 12), South Devon Cows (Recorded Cattle Society) (Class 13), Devon Cows (Class 14), a total entry of 23 animals was received, but only two animals (Classes 11, 14) appeared at the Show. The lack of support of these classes is consequent upon the local regulation prohibiting cattle from entering Devonshire unless they have been submitted to three weeks' quarantine.

One of the animals in question came from Devonshire and it is understood, was only admitted to the home farm after three weeks' quarantine just on the borders of Devonshire.

Highest Points Gained by a Cow.—The highest score of points made by a cow milked thrice daily was 194.5 points gained by a British Friesian Cow, No. 150, whilst a Lincolnshire Red Cow, No. 134, milked twice daily, scored 159.5 points. It may be recalled that the record for an animal milked twice daily is held by a British Friesian Cow, which gained 173.8 points in 1921.

Highest Yield of Milk.—The highest daily yield on the average of the two days for cows milked thrice daily was 95.1 lbs. given by the British Friesian Cow, No. 183. This is the record yield of milk given during any Dairy Show. The milk was, however, deficient in non-fatty solids at all milkings and only exceeded three per cent. of fat in the evening sample. This animal was closely followed by another British Friesian Cow (No. 150), which gave 92.8 lbs. of milk. The milk of this cow was above the presumptive limits for quality at every milking.

The highest yield for cows milked twice daily was 77.3 lbs., also given by a British Friesian Cow (No. 185). This was followed by 76.1 lbs. given by the Blue Albion Cow (No. 264). The record is held by a British Friesian Cow exhibited in 1921, which gave 82.3 lbs. of milk.

The greatest yield of milk at one milking was 40.8 lbs., given by a British Friesian cow (No. 185*). The milk was also well above the presumptive standard. The record is held by a non-pedigree Dairy Shorthorn, which gave 47.6 lbs. at one milking during the 1921 Show.

Disqualifications.—Animals were disqualified for poorness of the quality of the milk. The ruling which governs this disqualification came into operation first at the 1925 Dairy Show and states that

“Any cow or heifer whose milk for any one milking falls below 3 per cent. fat, and at the same milking also falls below 8.5 per cent. “solids-other-than-fat” shall not be eligible for any awards or trophies on Inspection, in the Milking Trials, or Butter Tests.”

Of the animals present at the Show five were disqualified from receiving any award. They included one non-pedigree Shorthorn,

* Milked twice daily.

† Milked thrice daily.

three British Friesian cows and one British Friesian Heifer. It should be noted that whereas these animals were not eligible to receive any award, the points they obtained have been included in the calculation of the averages for the respective classes.

NOTES ON THE CLASSES.

Class 1. Pedigree Dairy Shorthorn Cow over 5 years old.—Entries 24 ($20^* + 4\dagger$); present 10 ($8^* + 2\dagger$). This class did not contain any outstanding animal, and a reference to Table IV shows that cow No. 11*, milked twice daily, obtained 137.4 points, whilst the highest total for a cow (No. 2†) milked three times daily was 121.2 points. Two animals failed to attain the standard for the class.

The first prize of the class and reserve for the Desborough Cup was won by Messrs. J. Chivers & Sons' cow "Histon Wild Queen" (No. 11*) with 137.4 points. The second prize was awarded to Mr. J. G. Peels' cow "Backwood Seraphina" (No. 24*) with 135.7 points.

Class 2. Pedigree Dairy Shorthorn Cow over 3 and under 5 years old.—Entries 30 ($25^* + 5\dagger$); present 15 ($11^* + 4\dagger$). The cows milked twice daily averaged a lower number of points than at the previous Show. Four* of the 15 animals failed to reach the class standard. The first prize and Desborough Cup was won by Messrs. Allen & Rogers' cow "Grand Duchess Oxford 30th" (No. 54†), with 146.3 points. The second prize was secured by Mr. R. Tustian's cow "Greattew Blossom" (No. 50*) with 133.7 points.

The extra prize of £10 offered by the Shorthorn Society in conjunction with the Dairy Shorthorn Association for the cow exhibited in Classes 1 or 2 gaining most points on Inspection and in the Milking Trials was divided between the following four equal winners:—Messrs. J. Chivers & Sons' cow "Histon Wild Queen" (No. 11*), Mr. J. Pierpont Morgan's cow "Longhills Belle 2nd" (No. 12*), Mr. L. Hignett's cow "Barrington Lucy" (No. 43*) and Mr. R. Tustian's cow "Greattew Blossom" (No. 50*).

Class 3. Pedigree Dairy Shorthorn Heifer.—Entries 42 ($33^* + 9\dagger$); present 25 ($19^* + 6\dagger$). This class had a good attendance of 25 animals, but on the whole the results were disappointing, only 12 heifers attaining the class standard and seven animals yielding milk deficient in fat. The first prize was won by Mr. J. H. Ismay's heifer "Iwerne Merry Duchess 3rd" (No. 87†), with 99.5 points, and the second by Major R. F. Fuller's "Chalfield Rose 12th" (No. 57†) with 89.6 points.

The two extra prizes of £5 each offered by the Shorthorn Society in conjunction with the Dairy Shorthorn Association for the two best heifers exhibited in this class gaining most points on Inspection and in the Milking Trials were awarded to Mr. P. R. L. Savill's "Sweet Rosette 11th" (No. 77*) and Mr. J. H. Ismay's "Iwerne Merry Duchess 3rd" (No. 87†) with 16 points each.

* Milked twice daily.

† Milked thrice daily.

Class 4. Non-Pedigree Dairy Shorthorn Cow.—Entries 16 ($12^* + 4^\dagger$); present 9 ($6^* + 3^\dagger$). From Table II it will be observed that the average number of points gained by animals milked twice daily fell from 121.7 points at the 1925 Show to 106 points, and only two of these animals attained the class standard. The average points gained by the three animals milked three times daily, of which one failed to reach the class standard, was only 124.1 points. The first prize was awarded to Messrs. W. & J. Hiron's "Quarrendon Daffodil" (No. 102*) with 147.3 points, and the second prize to Mr. A. B. Croxon's "Spot" (No. 101†). The latter animal secured the Morrison Trophy for the second year in succession, and also the Dairy Shorthorn Association's Extra Prize of £10.

Class 5. Non-Pedigree Dairy Shorthorn Heifer.—Entries 8* (one withdrawn); present 1*. The number of entries in this class shows a considerably falling-off from previous years, and the only animal present failed to reach the class standard of points. Consequently, no award was made.

Class 6. Lincolnshire Red Shorthorn Cow. Entries 14 ($8^* + 5^\dagger$ 1 withdrawn); present 4 ($2^* + 2^\dagger$). The number of animals present in this class was exceptionally low, but Mr. S. Reading's "Langford Damsel 21st" (No. 134*) obtained first prize with the record score for this class of 159.5 points. This animal was also reserve for the British Dairy Farmers' Association's Supreme Individual Championship Challenge Trophy. It may be noted that the cow was milked twice daily. The fat content of the milk was very high. The second prize was awarded to Mr. B. G. Bowser's cow "Scothern Mystic" (No. 125†) with 131.9 points.

Class 7. Lincolnshire Red Shorthorn Heifer. Entries 11 ($6^* + 5^\dagger$); present 6 ($3^* + 3^\dagger$). All the animals of the class obtained points above the breed standard for heifers, and the averages (see Table II) exceed those of the three previous shows. The first prize was secured by Mr. S. Reading's "Langford Polly 21st" (No. 143*) with 103.1 points and the second by Messrs. J. Evens & Sons' "Burton Buttercup 13th" (No. 142†) with 97.2 points.

Class 8. British Friesian Cow over 5 years old.—Entries 26 ($2^* + 24^\dagger$); present 17 ($1^* + 16^\dagger$). The animals exhibited in this class advanced the remarkably high standard which has been set by the British Friesian Breed in recent years, the average number of points gained by the animals milked three times daily reaching 149.4 points. Only one animal in the class failed to reach the breed standard for the mature cows, but three lost points for milk deficient in fat, and five for milk deficient in solids-not-fat. However, the exceptionally high points obtained secured the Bledisloe Trophy for this breed. The first prize was awarded to "Lavenham Seabreeze" (No. 150†), exhibited by the Strutt & Parker Farms, Ltd. This cow, with the record score of 194.5 points, also secured the Barham, Spencer and

* Milked twice daily.

† Milked thrice daily.

Shirley Cups and was successful in winning the blue riband of the Show, namely, the British Dairy Farmers' Association's Supreme Individual Championship Trophy. The second prize was won by Messrs. W. G. White & Sons' "Muntham Troublesome" (No. 160†) with 169.2 points. One animal was disqualified owing to poorness of the quality of the milk.

Class 9. British Friesian Cow over 3 and under 5 years.—Entries 13 (1* + 12†); present 10 (1* + 9†). The animals in this class showed a fair standard of merit, the average number of points gained by cows milked three times daily being 130.6. The first prize was awarded to Mr. C. H. Harding's "Hemsted Ellen" (No. 176†) with the high total of 174.7 points. This animal was also reserve for the Barham and Shirley Cups. The cow milked twice daily (No. 185*) also gave a remarkably good account of herself and scored 167.1 points, securing second prize. The cow "Iken Lady Graceful" was exhibited by Mr. W. H. R. Gilbert. Two animals in the class were disqualified owing to a deficiency of both fat and solids-not-fat at one of the milkings.

Class 10. British Friesian Heifer. Entries 18 (6* + 12†); present 12 (4* + 8†). The standard attained by the animals milked twice daily did not compare favourably with the two former years. In 1925, the average points were 87.9, but the average for 1926 was only 80.9. The average for the heifers milked three times daily was, however, 94.6 points. The first prize was awarded to Mr. E. Hollingworth's "Knebworth Ceres Galatea" (No. 201†) with 127.4 points, and the second to Mr. E. Furness's "Hamels Foliage" (No. 191†) with 125.1 points. A reference to Table IV will show that heifer No. 198*, although obtaining no prizes, created a record for British Friesian heifers milked twice daily by securing 109.3 points. One animal was disqualified owing to the poorness of one sample of milk.

Class 11. South Devon Cow, entered in or eligible for the Herd Book of the South Devon Herd Book Society.—Entries 6 (2* + 4†); present 1†. Although only one animal appeared at the Show, it was of outstanding merit, and Mr. W. Hunt's "Milkmaid 9th" (No. 208†) was awarded first prize with the remarkably high score of 165.9 points. The cow was awarded the South Devon Silver Challenge Cup and was also reserve for the Spencer Cup.

Class 14. Devon Cow.—Entries 4*; present 1*. The only Devon cow present was Mr. W. D. Chick's "Lovely 4th" (No. 225*), and was of high standard. The cow was awarded first prize with 113.2 points and secured the "Busk" Perpetual Challenge Cup.

Class 15. Red Poll Cow over 5 years old.—Entries 11 (6* + 5†); present 7 (6* + 1†). The animals exhibited in this class were of good quality and provided one animal of exceptional merit. The first prize was secured by Mr. T. H. Sochon's cow "Tendring Floss 34th" (No. 235*), which obtained the remarkably high figure of 148.6 points.

* Milked twice daily.

† Milked thrice daily.

A reference to Table IV shows that this constitutes a record for the breed, even including the cow milked three times daily. The second prize was won by the Duchess of Newcastle's cow "Hardwick Hester" (No. 227†) with 130.6 points.

Class 16. Red Poll Cow over 3 and under 5 years old.—Entries 7 ($4^* + 3^\dagger$); present 6 ($3^* + 3^\dagger$). With the exception of one cow the animals secured points above the class standard. The first prize was awarded to "Southdown Beltine" (No. 240†) with 122.8 points, the property of Major J. A. Morrison. Mr. W. Hill's "Basildon Hawthorn" (No. 243*) was second with 104.8 points.

The extra prize of £5 offered by the Red Poll Cattle Society for the cow (Classes 15 and 16) gaining the most points by Inspection, and in the Milking Trials, was divided between three animals with equal awards. These animals were the Duchess of Newcastle's "Hardwick Hester" (No. 227†), Lieut.-Col. Sir Merrik R. Burrell's "Knepp Prudence 4th" (No. 239†) and Mr. W. Hill's "Basildon Hawthorn" (No. 243†).

Class 17. Red Poll Heifer.—Entries 16 ($6^* + 10^\dagger$); present 8 ($3^* + 5^\dagger$). This class hardly attained a satisfactory standard, as two animals failed to reach the class standard of 66 points. The first prize was awarded to "Longford Courage" (No. 247†) with 104.2 points, the property of Viscount Folkestone. The second prize was secured by Mr. J. G. Gray's "Basildon Queenliness" (No. 258*) with 103.1 points. The extra prize of £5 offered by the Red Poll Cattle Society for the heifer gaining the most points by Inspection and in the Milking Trials was awarded to Mr. W. R. Glazebrook's "Lydiat Lass" (No. 254†).

Class 18. Blue Albion Cow.—Entries 8*; present 5*. The average for the class was not as high as at the previous Show, but an individual breed record was made by the first prize winner, Mr. B. W. Smith's "Elsenham Jessie" (No. 264*) with 156.8 points. The second prize went to Mr. J. W. Towler's "Megdale Emma" (No. 267*) with 116.6 points. All the animals reached the class standard of 100 points.

Class 19. Blue Albion Heifer.—Entries 3*; present 3*. The 1926 Show was the first which offered a class for Blue Albion Heifers, and three animals appeared. One failed to reach the class standard of 66 points. The first prize went to Mr. J. W. Towler's "Mount Dairymaid 2nd" (No. 270*) with 73.3 points, and the second to Mr. A. Gillett's "Ridgewardine" (No. 269*) with 66.7 points.

Class 20. Welsh Black Cow.—Entries 4 ($1^* + 3^\dagger$); present 2 ($1^* + 1^\dagger$). Of the two animals which were exhibited, that milked three times daily failed to reach the class standard of 90 points. The only award was a first prize to Mr. J. B. Jones's "Bryncian Handy 6th" (No. 275*) with 94.0 points.

* Milked twice daily.

† Milked thrice daily.

Class 21. Ayrshire Cows.—Entries 22 ($2^* + 20^\dagger$); present 14 $\frac{1}{2}$. The cows of this breed showed a high degree of merit and every animal secured points in excess of the class standard, and lost no points for poorness of the quality of the milk. The first cow in this class was Mr. J. J. Johnstone's "Millantæ Mayflower" (No. 279 $\frac{1}{2}$) with 174.2 points. The same cow also secured the Rowallan and National Milk Challenge Cups. The second prize was awarded to Mrs. M. Mackay's "Bruchag Pearl 7th" (No. 288 $\frac{1}{2}$) with 174.0 points.

Class 22. Ayrshire Heifer.—Entries 16 ($1^* + 15^\dagger$); present 12 $\frac{1}{2}$. The animals of this class also obtained a creditable report as all exceeded the 60 points for the class standard. The first prize went to Mr. M. Cochrane's "Ryemuir Clara" (No. 299 $\frac{1}{2}$) with 117.6 points, and the second to "Byreholm Eliza" (No. 300 $\frac{1}{2}$) with 115.5 points, also exhibited by the same owner.

Class 23. Guernsey Cow.—Entries 10 ($7^* + 3^\dagger$); present 6 ($4^* + 2^\dagger$). The average in this class for cows milked twice daily was 91.4 points, which, on reference to Table III, will be seen to be a record for the Dairy Shows. This high average was largely due to the individual record created by cow No. 318* in obtaining 116.5 points (see Table IV). The points awarded to the animals milked three times daily were even higher, and the first prize and Stagenhoe Cup went to the Misses Hargreaves' "Lemon Gadfly" (No. 314 $\frac{1}{2}$) with 148.4 points, and the second prize and reserve for the Stagenhoe Cup to Mr. C. Norman's "Hadham Goldstream 11th" (No. 316 $\frac{1}{2}$) with 123.6 points.

Class 24. Guernsey Cow over 3 and under 5 years old.—Entries 6 ($5^* + 1^\dagger$); present 5 ($4^* + 1^\dagger$). The number of entries in this class was smaller than usual, and all but one exceeded the class standard of 71 points. The first prize was awarded to "Hadham Nellie 14th" (No. 326 $\frac{1}{2}$) with 104.2 points, exhibited by Mr. C. Norman, and the second prize to Mr. E. E. Palmer's "Jenny's Princess" (No. 327*) with 103.8 points.

Class 25. Guernsey Heifer.—Entries 11 ($10^* + 1^\dagger$); present 9*. The animals in this class did not maintain the standard of the three former shows, and the average number of points only reached 64.8 (see Table III). The first and second prizes were secured respectively by "Hayes Lola 6th" (No. 331*) with 82.1 points and "Downe Princess Mary 7th" (No. 332*) with 79.8 points. Both heifers were the property of Sir Eric Hambro.

Class 26. Jersey Cows.—Entries 23 ($21^* + 2^\dagger$); present 13 ($12^* + 1^\dagger$). Several cows in this class secured very high total points with the result that the average (98.6) for the class (see Table III) for cows milked twice daily is the highest for the breed. The first prize cow was Mr. R. W. Carson's "Mastermans Golden Cidonia" (No. 363 $\frac{1}{2}$) with 126.1 points, and the second, Major A. W. Huntington's "Marriette's Violet" (No. 359) with 119.64 points. It may be noted

* Milked twice daily.

† Milked thrice daily.

that the third prize winner almost tied with the second as the points were 119.55.

Class 27. Jersey Cow over 3 and under 5 years.—Entries 15 ($14^* + 1\dagger$); present 10 ($9^* + 1\dagger$). This class again provided an excellent entry and the average number of points gained was almost as high as that of the older cows, namely, 97.7 for cows milked twice daily. This average is well above the class standard of 70 points. The first prize was gained by Mr. H. Cecil Pelley's "Sixty Five" (No. 371*) with 115.5 points, and the second by Col. L. Gisborne's "Cids Raleigh Spectre" (No. 364*) with 106.8 points.

Class 28. Jersey Heifer.—Entries 25 ($23^* + 1\dagger + 1$ withdrawn); present 12 ($11^* + 1\dagger$). For the second year in succession the general excellence of this class was not maintained and five animals failed to reach the class standard of 60 points. The first prize was awarded to "Countess Pauline" (No. 383†) with 95.5 points, the property of Sir Harold Mackintosh and Mr. A. W. Ruggles Bruse's "Patsy May 3rd" (No. 391*) was second with 80.1 points.

Class 29. Kerry Cow.—Entries 5 ($4^* + 1\dagger$); present 3*. Both the numbers of entries and the animals present at the Show show a large falling off, but a reference to Table III shows that the average of the class was well ahead of any previous records for this breed. This high average was not due to an animal of remarkably outstanding excellence, but to the good all-round qualities of every animal. Thus, although a record average of 112.3 points has been obtained, the individual record is still held by an animal exhibited in 1925. The first prize and Kerry Cup were gained by Brig.-Gen. H. Palmer with "Coquet Gipsy" (No. 404*) with 120.7 points, and the second and reserve for the Kerry Cup was Captain N. Zambra's "Hattingley Haughty" (No. 406*) with 111.4 points.

Class 30. Kerry Heifer.—Entries 9 ($8^* + 1\dagger$); present 4*. This class also attained a uniform standard of merit, averaging 64.5 points compared with a class standard of 53 points. The first prize winner was "Wadlands Flash Mona" (No. 411*) with 70.7 points, and the second was "Wadlands Flash Drops" (No. 412*) with 69.7 points. Both animals were the property of Mr. J. W. Towler.

Class 31. Dexter Cow.—Entries 3 ($2^* + 1\dagger$); present 3 ($2^* + 1\dagger$). The number of entries received in this class was much smaller than usual. The first prize and Nutt Cup were awarded to Mrs. H. P. May's "Barbara" (No. 420†) with 88.7 points. No other animals secured more than 70 points, the class standard, and no other awards were therefore possible.

* Milked twice daily.

† Milked thrice daily.

CHALLENGE CUPS AND TROPHIES.

Open to All Breeds.

The British Dairy Farmers' Association's Supreme Individual Championship Challenge Trophy.—This trophy, which is open for individual competition is the blue riband of the Show. It is awarded to the owner of the cow gaining the greatest number of points on Inspection (First prize, 50 points; second prize, 45 points; third prize, 40 points; reserve, 35 points), in the Milking Trials (provided the quality of the milk does not fall below 3 per cent. fat, nor below 8·5 per cent. of non-fatty solids at any milking) and twice the number of points in the Butter Test, taking only one Lactation addition.

The Gold Medal of the Association is presented to each year's winner of this trophy.

The following table gives details of the points awarded, from which it will be seen that the British Friesian cow "Lavenham Seabreeze" (No. 150†), owned by The Strutt & Parker Farms, Ltd., secured the supreme award of the Show. Mr. S. Reading's "Langford Damsel 21st" (No. 134*), a Lincolnshire Red Cow milked only twice daily, was reserve.

Cow No.	134*	150†	208†
Inspection Points	45 0	40 0	50 0
Milking Trial Points	159 5	195 0	165 0
Butter Test Points	116 0	104 0	101 0
Total	320 5	339 0	316 0
Award	Reserve.	Winner.	

The Bledisloe Challenge Trophy.—After the supreme individual award, the trophy which created the greatest interest was this trophy, which was awarded to the Breed Society adjudged to have the best exhibit of good all-round dairy cows.

This inter-breed competition is conducted upon lines which may be changed from time to time by the Council of the Association, but at the 1926 Show the conditions were essentially as at the previous Show. The animals to compete on behalf of each breed were the six cows in the senior classes with the highest points in the Milking Trials, provided each animal has been considered typical of its breed by the Inspection Judges, and has attained the breed standard class points in the Milking trials.

* Milked twice daily.

† Milked thrice daily.

The total number of points gained by each team of six cows consists of the sum of the milking trial points of each animal, plus inspection points on the basis of 100 points for first prize, 90 points for second, 80 points for third, and 70 points for fourth place.

Only five breeds provided teams of six animals, and the details are given in the following table :—

THE BLEDISLOE TROPHY TEAMS AND POINTS GAINED.

Class 1—Pedigree Shorthorns.				Class 8—British Friesians.			
No. in Catalogue	Milking Trial Points.	Inspection Points.	Total Points.	No. in Catalogue	Milking Trial Points	Inspection Points	Total Points
11*	137.4	--	137.4	150†	195.0	80	275.0
24*	135.7	--	135.7	160†	169.2	--	169.2
18*	130.0	--	130.0	151†	165.9	--	165.9
2†	121.2	--	121.2	149†	160.9	--	160.9
9†	119.3	90	209.3	162†	157.1	--	157.1
10*	115.6	80	195.6	154†	155.2	100	255.2
	759.2	170	929.2		1003.3	180	1183.3

Class 15—Red Polls.				Class 21—Ayrshires.			
235*	148.6	70	218.6	279†	174.2	100	274.2
227†	130.6	90	220.6	288†	174.0	--	174.0
228*	127.5	80	207.5	276†	161.2	--	161.2
236*	116.1	--	116.1	286†	153.3	--	153.3
233*	106.2	100	206.2	290†	153.0	80	233.0
237*	101.3	--	101.3	280†	144.0	--	144.0
	730.3	340	1070.3		959.7	180	1139.7

Class 26—Jerseys.

No. in Catalogue.	Milking Trial Points.	Inspection Points.	Total Points.
363†	126.1	--	126.1
359*	119.6	--	119.6
357*	119.6	70	189.6
362*	107.0	90	197.0
350*	106.8	--	106.8
358*	106.4	80	186.4
	685.5	240	925.5

* Milked twice daily.

† Milked thrice daily.

The following is a summary of the points gained in the competition for the Bledisloe Trophy, with the breeds arranged in order of merit :—

Class.	Breed.	Milking Trial Points.	Inspection Points.	Total.	Remarks.
8	British Friesian	1003·3	180	1183·3	Winner.
21	Ayrshire	959·7	180	1139·7	Reserve.
15	Red Poll	730·3	340	1070·3	—
1	Pedigree Shorthorn	759·2	170	929·2	—
26	Jersey	685·5	240	925·5	—

The British Friesian Cattle Society hold the Trophy for the year, with the Ayrshire Cattle Herd Book Society as Reserve.

The Morrison Challenge Trophy is awarded to the owner of the cow exhibited at three consecutive London Dairy Shows gaining the greatest number of points totalled according to the following scale :—

(a) Number of points in the Milking Trials above the standard for the breed, plus (b) three times the number of points in the Butter Tests above the standard for the breed, and (c) Inspection points, as follows :—First prize, 40 points ; second prize, 30 points ; third prize, 20 points ; fourth or reserve, 10 points.

Three cows competed for this trophy, and the winner for the second year in succession was Mr. A. B. Croxon's Non-Pedigree Shorthorn Cow "Spot" (No. 101†) with a total of 239·95 points. The reserve was a Jersey cow "Roberta's Star 2nd" (No. 346*) owned by Mr. G. Cross, which obtained 195·1 points as a total for the three years.

The winner's record at the Shows of 1924, 1925 is exceptionally fine, and is given in detail below :—

Year.	No. in Catalogue.	Milking Trials.			Butter Tests.			Inspection.	
		Points.	Standard	Net Points.	Points.	Standard	Net Points.	Award.	Points.
1924	67*	142·5	110	32·5	40·5	34	19·5	2nd	30
1925	77*	145·9	110	35·9	36·0	34	6·0	1st	40
1926	101†	146·3	110	36·3	47·25	34	39·75	—	—
		Totals ...		104·7					70
		GRAND TOTAL ...			239·95 points.				

The Barham Challenge Cup is awarded to the owner of the cow gaining the greatest number of points in the Milking Trials. The British Friesian Cow "Lavenham Seabreeze" (No. 150†) was the winner, and was the property of The Strutt & Parker Farms, Ltd. Mr. C. H. Harding's "Hemsted Ellen" (No. 176†) was reserve.

The Spencer Challenge Cup is awarded to the owner of the cow gaining the greatest number of points by Inspection, Milking Trials and Butter Tests. The following are the points allowed for Inspection : first prize, 50 points ; second prize, 45 points ; third prize, 40 points ; reserve or very highly commended, 35 points ; highly commended,

* Milked twice daily.

† Milked thrice daily.

30 points; and commended, 25 points. The Cup was won by the British Friesian Cow (No. 150†). The reserve for the Cup was Mr. W. Hunt's South Devon Cow "Milkmaid 9th" (No. 208†).

The Shirley Challenge Cup awarded to the owner of the cow giving the greatest weight of milk in the Milking Trials, such milk to contain not less than 3 per cent. of fat and 8·5 per cent. of non-fatty solids, was also won by the British Friesian Cow (No. 150†) with the British Friesian Cow (No. 176†) as reserve.

The National Milk Cup, awarded to the owner of the cow or heifer entered in or eligible for the Herd Book of its breed, gaining the greatest number of points per 1,000 lbs. live weight in the Milking Trials, was awarded to Mr. J. J. Johnstone, Millantal, Lockerbie, Dumfriesshire, for his Ayrshire Cow "Millantal Mayflower" (No. 279†) with 140·9 points per 1,000 lbs.

The reserve was Major C. R. Dudgeon, whose Ayrshire Cow "Cargen Holm Proud Lady 8th" (No. 290†) gained 138·7 points per 1,000 lbs. live weight. The latter animal was also placed second at the 1925 Show.

The Robert L. Mond Special Prize of £10, awarded to the owner of the two animals, competing in the Milking Trials, which are the progeny of a registered bull of the same breed, and which gain the largest number of points above their class standard, and are certified as true to type by the Class Inspection Judge. There were 11 entries.

The winner was, for the second year in succession, Mr. J. Cochrane with two Ayrshire Cows, the progeny of the bull "Byreholme Copper King" (20606). The second prize of £5, donated by the Countess de la Warr was won by Major C. R. Dudgeon, also for the second time in succession with two Ayrshire Heifers, the progeny of the bull "Auchenbrain Casino" (22767). The reserve was Mr. J. W. Towler, Wadlands Hall, Farsley, Leeds, with two Kerry Heifers, the progeny of the bull "Wadlands Flashpoint" (621).

The points gained by the leading competitors are given below:—

Catalogue No.		Milking Trial Points.	Class Standard	Balance.	Total.
<i>Progeny of Byreholm Copper King</i> (20606). (Ayrshire.)					
292†	Maqueston Mayflower ...	139·7	90	49·7	} 103·2
293†	Byreholm Buntie ...	143·5	90	53·5	
<i>Progeny of Auchenbrain Casino</i> (22767). (Ayrshire.)					
310†	Cargen Holm Letty 7th	91·7	60	31·7	} 77·0
311†	Cargen Holm White	105·3	60	45·3	
	Stockings 11th				
<i>Progeny of Wadlands Flashpoint</i> (621). (Kerry.)					
411*	Wadlands Flash Mona ...	70·7	53·3	17·4	} 33·8
412*	Wadlands Flash Drops ...	69·7	53·3	16·4	

* Milked twice daily.

† Milked thrice daily.

In view of the intense interest and keen rivalry between the various breeds at the Dairy Show, the following table will supply a survey of the distribution of the cups and trophies. The reserve in each case is also given.

	Breed of Winner.		Breed of Reserve.	
Supreme Champion Trophy	British Friesian	...	Lincolnshire Red.	
Bledisloe Trophy	...	British Friesian	...	Ayrshire.
Morrison Trophy	...	Dairy Shorthorn (non-Pedigree)	...	Jersey.
Barham Cup	...	British Friesian	...	British Friesian.
Spencer Cup	...	British Friesian	...	South Devon.
Shirley Cup	...	British Friesian	...	British Friesian.
National Milk Cup	...	Ayrshire	...	Ayrshire.
R. L. Mond Prize	...	Ayrshire	...	Ayrshire.

The following tables supply much valuable information on the performances of the different breed classes at the 1926 and other recent Shows, and affords opportunities for many interesting comparisons :—

Table I contains in summarised form the entries, the average live weight, milk yield, fat percentage and points earned and lost in each class, also the average milk yield and points per 1,000 lbs. live weight.

Table II shows the number of cows and heifers tested, average points gained, number of animals attaining the Association's standard points, and average live weights of each class at the last three Shows.

Table III shows the average points gained in the Milking Trials each year since 1914.

Table IV shows the highest points gained in each class each year since 1914.

Table V shows the average yield and quality of the milk yielded by each class at the 1926 Show.

Table VI shows the number of animals yielding milk deficient in fat and solids-other-than-fat in each class of each Show since 1914.

It will be observed that the averages for cows milked twice daily and those milked three times daily are given separately for comparative purposes.

TABLE I.

Class.	DESCRIPTION.	Number in Class.		Average Live Weight of Class.	Average Yield of Milk.	Yield of Milk per 1,000 lbs. Live Weight.	Average Fat.	Animals below Standard for Fat.		Animals losing Points for Quality of Milk.	Average Points lost by Class for Quality of Milk.	Points per 1,000 lbs. Live Weight.	Average B.D.F.A. Points Standard Points gained by Class.
		Entered.	Present in Making Trials.					%	%				
Cows over 5 years old.													
1	Dairy Shorthorn ...	20*	8	1,511	52.2	34.6	4.22	0	12.5	0	1.25	76.3	113.3
4	" " Non-Pedigree	12*	6	1,326	53.1	40.0	4.57	0	0	0	8.3	90.8	120.3
6	Lincoln Red Shorthorn ...	8*	3	1,316	55.0	41.8	3.85	50.0	66.7	0	0	81.1	106.0
8	British Friesian ...	24†	16	1,414	62.4	44.0	3.97	33.3	66.7	0	0	87.5	124.1
11	South Devon (Herd Book Society)	24†	16	1,404	53.6	38.1	4.32	50.0	50.0	0	5.0	92.1	123.8
13	" " Recorded Cattle Society	2*	0	1,547	66.8	45.0	3.83	100.0	100.0	0	10.0	92.5	120.6
14	Devon ...	2*	0	1,306	72.7	51.3	3.77	12.5	37.5	0	5.6	106.8	149.4
15	Red Poll ...	4†	0	1,566	70.5	45.7	4.53	0	0	0	0	107.7	165.9
18	Blue Albion ...	6*	1	1,253	49.5	39.5	4.64	0	0	0	0	90.4	113.2
20	Welsh Black ...	5†	1	1,231	51.2	41.5	4.39	0	0	0	0	95.2	116.5
21	Ayrshire ...	8*	1	1,249	61.1	48.0	3.84	20.0	60.0	0	6.0	104.5	130.6
23	Guernsey ...	1*	1	1,389	59.0	42.4	3.82	0	0	0	0	87.4	120.1
26	Jersey ...	1*	1	1,124	44.4	39.5	3.69	0	0	0	0	83.7	94.0
29	Kerry ..	3†	1	1,167	38.0	32.5	4.39	0	0	0	0	75.6	87.8
31	Dexter...	20†	14	1,160	63.1	51.0	4.12	0	0	0	0	122.7	137.1
		7*	4	1,027	38.9	37.9	3.86	0	0	0	0	88.7	91.4
		3†	2	1,088	32.0	47.3	5.74	0	0	0	0	123.9	136.0
		21*	12	906	40.0	44.1	4.98	8.3	8.3	0	0.8	98.0	98.6
		2†	1	1,117	40.4	36.2	7.46	0	0	0	0	113.9	126.1
		4*	3	1,056	51.4	48.7	4.11	0	0	0	0	107.1	112.3
		1†	0										
		2*	2	730	34.6	47.4	3.55	50.0	50.0	0	10.0	86.6	62.6
		1†	1	743	35.1	47.3	4.21	0	0	0	0	115.1	88.7
	Carried forward	99*	51										
		84†	44										

* Milked twice daily.

† Milked thrice daily.

TABLE I.—Continued.

Class.	Description.	Number in Class.		Average Live Weight of Chss.	Average Yield of Milk.	Yield of Milk per 1,000 lbs. Live Weight.	Average Fat.	Animals below Standard for Fat. A.M. or P.M.	Animals losing Points for Quality of Milk.	Average Points lost by Class for Quality of Milk.	Points per Live Weight.	Average Points gained by Chss.	B.D.F.A. Standard Points for Chss.
		Entered.	Present in Milking Trials.	lbs.	lbs.	lbs.	%	%	%				
	Brought forward	99* 84†	51 44										
	<i>Cows over 3 and under 5 years old.</i>												
2	Dairy Shorthorn	25*	11	1,323	42.3	32.0	3.81	0	18.2	2.7	67.1	88.3	88
	"	5†	4	1,288	57.3	44.5	4.07	25 0	25 0	5.0	93.5	119.7	83
9	British Friesian	1* 12†	1 9	1,368	77.3	57.4	4.02	0	0	0	122.1	167.1	91
	"	4*	3	1,377	67.9	48.6	3.45	33.3	44.4	10.0	95.7	129.5	83
16	Red Poll	3† 3†	3 3	1,210	41.4	34.2	4.26	0	33.3	3.3	75.7	90.1	83
	"	5*	4	1,193	48.4	40.5	3.72	0	0	0	90.1	106.0	83
24	Guernsey	1† 1†	1 1	964	35.5	36.8	4.60	0	0	0	89.5	85.3	71
	"	14*	9	898	42.6	47.4	5.43	0	0	0	116.0	104.2	71
27	Jersey	1† 1†	1 1	864	37.1	43.0	5.08	0	0	0	112.0	97.7	75
	<i>Heifers.</i>												
	"												
3	Dairy Shorthorn	33*	19	1,102	32.5	29.5	3.76	26.3	36.8	3.7	60.0	65.7	66
	"	9†	6	1,149	37.3	32.5	3.69	33.3	33.3	3.3	68.8	78.1	66
5	" Non-Pedigree	7*	1	1,222	22.4	18.4	3.98	0	0	0	47.4	56.3	73
7	Lincoln Red Shorthorn	6*	3	1,159	38.2	32.9	4.64	0	0	0	47.4	87.7	66
	"	5†	3	1,105	43.8	39.7	3.84	0	33.3	3.3	81.8	89.6	66
10	British Friesian	6*	4	1,394	40.7	29.3	3.53	25 0	25 0	7.5	60.5	80.9	73
	"	12†	8	1,323	47.6	35.8	3.70	13.5	25.0	3.8	74.1	94.6	73
12	South Devon (Herd Book Society)	5*	0	1,002	25.2	22.2	4.44	—	—	—	—	—	66
17	Red Pole	10*	3	1,063	43.0	24.8	3.91	0	0	0	72.6	77.2	66
	"	10†	3	1,083	30.6	21.8	4.29	0	0	0	55.2	67.8	66
19	Blue Albion	1*	0	1,233	30.6	—	—	—	—	—	—	—	60
22	Ayrshire	15†	12	1,034	45.5	44.0	4.37	8 3	8.3	0.8	98.1	101.3	60
	"	10*	9	907	26.8	29.6	4.65	0	11.1	1.1	71.1	64.8	56
25	Guernsey	11†	0	—	—	—	—	—	—	—	—	—	56
	"	23*	11	762	26.2	34.4	4.42	18.2	18.2	1.8	78.7	60.5	60
28	Jersey	1† 1†	1 1	694	36.6	52.7	5.78	0	0	0	136.1	95.5	60
	"	8*	4	842	29.3	34.8	4.09	0	0	0	78.8	64.5	53
30	Kerry	1†	—	—	—	—	—	—	—	—	—	—	53
	<i>Heifers.</i>												
	"												
	TOTAL	256*	136*										
		160†	97†										
		416	233										

* Milked twice daily.

† Milked thrice daily.

TABLE II.—SHOWING NUMBER OF COWS TESTED, AVERAGE POINTS GAINED AND THE NUMBER OF COWS ATTAINING THE SOCIETY'S STANDARD—1924 TO 1926.

Class.	Description.	B.D.P.A. Standard Points.	Number of Cows Tested.			Average Points Gained.			Number and Percentage of Cows above Standard.			Average Live Weight of Class.								
			1924	1925	1926	1924	1925	1926	1924	1925	1926	1924	1925	1926						
1	Dairy Shorthorn—Pedigree	100	9*	12*	8*	109.5	108.2	113.3	—	7	77.7	—	7	58.3	6	75.0	12	24.11	92.18	55
2	Ditto (over 3 and under 5 years)	100	—	—	2†	—	—	120.3	—	9	60.0	—	—	—	2	100.0	11	51.11	58.11	91
3	Ditto Heifers	83	15*	10*	11*	88.3	92.8	88.3	—	2	33.3	—	—	—	7	83.3	10	20.10	34.9	94
4	Ditto Heifers	66	6*	13*	6†	61.0	73.3	65.7	—	3	33.3	—	—	—	5	75.0	10	20.10	34.9	94
5	Dairy Shorthorn—Non-Pedigree	110	15*	6*	3†	93.0	121.7	106.0	—	1	20.0	—	—	—	2	100.0	12	64.12	13.11	84
6	Ditto Heifers	73	2*	3*	1*	66.8	73.3	56.3	—	3	50.0	—	—	—	2	66.6	12	64.12	13.11	84
7	Lincoln Red Shorthorn	100	9*	11*	2*	93.8	115.4	121.1	—	1	33.3	—	—	—	0	0.0	10	5.10	14.10	102
8	Ditto Heifers	66	8*	5*	3*	65.1	84.6	87.7	—	4	50.0	—	—	—	2	100.0	12	65.12	6.12	60
9	British Friesian	110	9*	14*	1*	118.2	123.8	120.6	—	6	66.6	—	—	—	3	100.0	10	67.10	48.10	39
10	Ditto (over 3 and under 5 years)	91	16*	7*	1*	108.8	119.8	167.1	—	13	81.3	—	—	—	15	93.8	13	5.12	60.12	80
11	Ditto Heifers	73	6*	3*	4*	85.0	87.9	80.9	—	4	66.6	—	—	—	8	88.9	12	16.13	18.12	24
12	South Devon (Herd Book Soc.)	100	—	—	3†	—	—	94.6	—	—	—	—	—	—	3	75.0	11	36.11	105.12	50
13	South Devon Heifers (ditto)	66	—	—	2*	—	—	114.9	—	—	—	—	—	—	6	75.0	—	—	—	91
14	South Devon (Rec. Cattle Soc.)	100	—	—	1†	—	—	165.9	—	—	—	—	—	—	1	100.0	—	—	—	13
15	Devon	90	—	—	—	—	—	103.6	—	—	—	—	—	—	—	—	—	—	—	10
16	Red Poll	83	7*	6*	1*	93.6	103.2	113.3	—	2	66.6	—	—	—	1	100.0	10	20.11	82.11	21
	Ditto (over 3 and under 5 years)	100	10*	4*	3†	89.6	97.7	106.0	—	6	60.0	—	—	—	5	83.3	10	79.11	83.10	11
		83	—	—	—	—	—	—	—	—	—	—	—	—	2	100.0	10	5.10	62.10	90
			—	—	—	—	—	—	—	—	—	—	—	—	3	100.0	—	—	—	73

* Milked twice daily. † Milked thrice daily.

TABLE II.—SHOWING NUMBER OF COWS TESTED, AVERAGE POINTS GAINED AND THE NUMBER OF COWS ATTAINING THE SOCIETY'S STANDARD—1924 TO 1926.—Continued.

Class.	Description.	B. D. F. A. Standard Points.	Number of Cows Tested.		Average Points Gained.		Number and Percentage of Cows above Standard.				Average Live Weight of Class.										
			1924.	1925.	1926.	1924.	1925.	1926.	1924.	1925.	1926.	1924.	1925.	1926.							
17	Red Poll Heifers	{ 66	9*	5*	3*	71.5	86.0	77.2	6	66.6	4	80.0	1	33.3	9	52	10	30	9	84	
18	Blue Albion ...	{ 66	—	—	5†	—	—	93.5	—	—	—	—	—	—	—	—	—	—	10	57	
19	Ditto Heifers	{ 100	6*	5*	5*	100.3	128.3	120.1	4	66.6	4	80.0	5	100.0	11	44.12	73.12	45	45	45	
20	Welsh Black	{ 66	—	—	2*	—	—	67.8	—	—	—	—	—	—	—	—	—	—	11	1	
21	—	{ 90	—	—	1†	—	104.1	94.0	—	—	2	100.0	0	100.0	—	10	42.10	4	4	4	
21	Ayrshire	{ 90	8*	16*	14†	134.1	121.7	87.8	—	—	—	—	—	0.0	—	—	—	10	47	47	
22	Ditto Heifers	{ 60	10*	15*	12†	93.2	90.4	137.1	8	100.0	13	81.3	14	100.0	10	90	10	96	—	49	
23	Guernsey	{ 85	5*	8*	4*	77.4	77.5	101.3	10	100.0	15	100.0	12	100.0	9	73	9	100	—	26	
24	Ditto (over 3 and under 5 years)	{ 71	8*	9*	2†	82.3	76.6	91.4	1	20.0	2	25.0	2	100.0	9	37	9	55	9	19	
25	Ditto Heifers	{ 58	9*	4*	1†	76.2	68.8	89.5	6	75.0	7	77.7	3	75.0	8	47	8	12	8	68	
26	Jersey	{ 90	16*	12*	9*	91.9	95.3	118.0	8	88.9	3	75.0	8	100.0	7	79	7	55	8	11	
27	Ditto (over 3 and under 5 years)	{ 75	—	—	1†	—	92.5	98.6	9	56.3	8	66.6	9	100.0	7	48	8	45	8	10	
27	—	{ 75	—	—	1†	—	92.5	126.1	—	—	11	100.0	9	100.0	—	—	—	—	9	109	
28	Ditto Heifers	{ 60	3†	10*	11*	80.0	68.7	87.7	—	—	11	100.0	9	100.0	7	94	7	94	7	80	
28	—	{ 60	—	—	1†	—	—	93.2	24	70.6	5	50.0	1	100.0	7	41	6	107	6	90	
29	Kerry	{ 80	—	—	1*	—	—	95.3	—	—	—	—	1	100.0	—	—	—	—	6	22	
30	Kerry Heifers	{ 53	5*	3*	4*	79.6	105.6	112.3	6	66.6	7	100.0	3	100.0	8	73	8	50	9	48	
31	Dexter	{ 70	—	—	3*	—	38.6	64.5	1	20.0	1	100.0	4	100.0	6	48	6	65	7	58	
32	Ditto Heifers	{ 47	2*	1*	—	—	78.8	82.6	1	—	2	66.6	0	100.0	—	—	—	6	84	6	71
32	—	{ 47	—	—	—	58.9	53.8	88.7	2	100.0	1	100.0	1	100.0	5	52	4	96	—	—	

* Milked twice daily.

† Milked thrice daily.

TABLE III.—AVERAGE POINTS GAINED IN THE MILKING TRIALS EACH YEAR SINCE 1914.

Year.	Dairy Short-horns, Pedigree.	Dairy Short-horns, 3-5 yrs.	Dairy Short-horns, Ped.	Dairy Short-horns, Non-Pedigree.	Dairy Short-horns, Horns Non-Ped.	Lincolnshire Red Cows.	Lincolnshire Red Heifers.	British Friesian Heifers.	South Devon Cows.	Devon Cows.	Red Poll Cows.	Red Poll Heifers.	Blue Albion Cows.	Ayrshire Cows.	Ayrshire Heifers.	Guernsey Cows.	Guernsey Heifers.	Jersey Cows.	Kerry Cows.	Kerry Heifers.	Dexter Cows.
1914	106.5	—	83.4	106.9	73.6	96.3	67.7	80.7	108.5	—	127.6	85.5	—	—	—	85.5	—	89.8	—	—	—
1915	103.5	—	65.5	118.5	75.7	94.9	57.9	82.3	76.0	—	89.0	86.0	—	—	—	82.6	—	76.3	—	—	—
1916	105.2	75.4	59.6	95.0	59.2	93.4	68.3	83.1	—	85.6	88.8	78.0	—	—	—	84.8	—	80.3	69.6	—	—
1917	107.1	79.7	60.9	111.8	76.9	85.6	86.0	98.2	—	108.5	91.8	72.1	—	—	—	84.2	—	85.5	72.1	54.0	33.6
1918	109.6	96.3	61.6	105.3	73.0	105.3	83.1	133.6	78.8	104.4	107.8	83.0	69.5	—	—	82.8	—	76.3	76.5	49.3	37.8
1919	107.4	94.9	73.2	108.1	73.0	113.2	71.4	120.2	79.3	100.5	98.7	91.5	64.7	—	—	88.5	—	79.7	75.3	49.9	59.7
1920	107.4	94.9	73.2	108.1	73.0	113.2	71.4	120.2	79.3	100.5	98.7	91.5	64.7	—	—	88.5	—	79.7	75.3	49.9	59.7
1921	107.4	94.9	73.2	108.1	73.0	113.2	71.4	120.2	79.3	100.5	98.7	91.5	64.7	—	—	88.5	—	79.7	75.3	49.9	59.7
1922	107.4	94.9	73.2	108.1	73.0	113.2	71.4	120.2	79.3	100.5	98.7	91.5	64.7	—	—	88.5	—	79.7	75.3	49.9	59.7
1923	107.4	94.9	73.2	108.1	73.0	113.2	71.4	120.2	79.3	100.5	98.7	91.5	64.7	—	—	88.5	—	79.7	75.3	49.9	59.7
1924	109.5	88.8	67.0	103.0	66.8	93.3	65.1	118.8	85.0	93.6	92.1	71.5	100.3	128.7	90.4	77.5	68.8	91.9	79.6	38.6	—
1925	108.2	92.8	73.3	121.7	73.8	113.4	84.6	123.8	87.9	114.9	103.2	125.4	86.0	128.3	121.7	77.5	64.8	95.3	105.0	69.0	78.8
1926*	113.3	88.8	65.7	106.0	56.3	121.1	87.7	120.6	80.9	113.2	116.5	77.2	120.1	—	—	91.4	—	98.6	112.3	64.5	62.6
Average Points (Shores*)	106.0	89.6	64.9	109.0	74.7	103.8	76.6	110.6	78.1	103.2	102.2	72.3	106.8	117.3	87.4	84.2	66.9	86.4	84.8	53.5	59.2
R.D.F.A. Class	100	83	66	110	73	100	60	110	73	100	90	100	66	90	60	85	56	90	80	53	70
Standard	120.3	119.7	78.1	124.1	—	123.8	89.6	149.4	94.6	165.9	—	130.6	93.7	137.1	101.3	136.0	—	126.1	—	—	88.7

TABLE IV.—SHOWING THE HIGHEST POINTS GAINED EACH YEAR SINCE 1914.

Year.	Dairy Short-horns, Pedigree.	Dairy Short-horns, 3-5 yrs.	Dairy Short-horns, Ped.	Dairy Short-horns, Non-Pedigree.	Dairy Short-horns, Horns Non-Ped.	Lincolnshire Red Cows.	Lincolnshire Red Heifers.	British Friesian Heifers.	South Devon Cows.	Devon Cows.	Red Poll Cows.	Red Poll Heifers.	Blue Albion Cows.	Ayrshire Cows.	Ayrshire Heifers.	Guernsey Cows.	Guernsey Heifers.	Jersey Cows.	Kerry Cows.	Kerry Heifers.	Dexter Cows.
1914	144.8	—	98.1	136.9	97.6	105.5	77.2	103.6	133.8	—	144.9	98.1	—	—	—	99.7	—	112.2	—	—	—
1915	125.8	—	79.0	149.5	101.7	111.2	80.2	116.3	99.2	—	107.0	82.1	—	—	—	96.7	—	104.5	—	—	—
1916	136.4	97.1	69.0	117.8	118.8	133.6	85.1	117.1	—	111.3	135.9	86.2	—	—	—	118.8	—	82.4	101.3	—	—
1917	116.7	101.7	80.0	129.1	96.1	115.1	40.2	155.6	96.7	137.9	119.0	82.2	—	—	—	130.4	—	100.4	95.6	—	—
1918	131.9	130.6	81.0	158.8	87.5	157.1	96.8	173.8	143.6	132.5	117.3	81.2	—	—	—	124.1	—	100.3	107.9	58.0	47.3
1919	152.2	116.1	83.1	129.8	88.2	150.6	82.4	158.3	142.4	126.2	122.6	80.3	—	—	—	128.0	—	100.4	105.0	63.2	80.0
1920	167.1	121.9	90.0	166.1	116.5	187.6	109.0	154.7	139.2	142.7	142.7	94.6	87.7	130.3	111.8	107.7	102.7	119.9	114.8	60.3	79.0
1921	167.1	121.9	90.0	166.1	116.5	187.6	109.0	154.7	139.2	142.7	142.7	94.6	87.7	130.3	111.8	107.7	102.7	119.9	114.8	60.3	79.0
1922	167.1	121.9	90.0	166.1	116.5	187.6	109.0	154.7	139.2	142.7	142.7	94.6	87.7	130.3	111.8	107.7	102.7	119.9	114.8	60.3	79.0
1923	167.1	121.9	90.0	166.1	116.5	187.6	109.0	154.7	139.2	142.7	142.7	94.6	87.7	130.3	111.8	107.7	102.7	119.9	114.8	60.3	79.0
1924	132.4	124.1	101.8	145.9	94.6	149.9	108.0	162.3	145.7	135.5	146.4	107.4	145.2	165.2	117.5	106.6	86.0	120.1	134.2	57.4	—
1925	132.4	124.1	101.8	145.9	94.6	149.9	108.0	162.3	145.7	135.5	146.4	107.4	145.2	165.2	117.5	106.6	86.0	120.1	134.2	57.4	—
1926*	137.4	133.7	87.3	147.3	56.3	159.5	103.1	120.6	109.8	113.2	148.6	103.1	156.8	—	—	116.5	82.1	119.6	120.1	69.3	86.4
1926†	121.2	146.3	99.5	146.3	—	131.9	97.2	194.5	127.4	165.9	130.6	104.2	—	174.2	122.2	148.4	—	126.1	—	70.7	88.7

* Milked twice daily. † Milked three times daily.

TABLE V.—QUANTITY AND QUALITY OF MILK. 1926 SHOW.

Class No.	Breed.	Competitors. No.	Average Weight of Milk.			Total Weight of Milk.	Average Composition of Milk.																	
							Fat.				Solids—not Fat.				Total Solids.									
							Morn.		Aft.		Even.		Morn.		Aft.		Even.		Morn.		Aft.		Even.	
			lbs.	lbs.	Even.		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	Dairy Shorthorn—Pedigree	{ 2†	26.2 17.3	26.0 18.0	17.8	52.2 53.1	3.77 3.85	4.48 5.42	4.45	8.83 9.11	8.97 8.72	12.61 14.14	13.45 13.38											
2	Ditto (over 3 and under 5 years)	{ 11*	21.4 19.8	20.9 19.2	18.3	42.3 57.3	3.74 3.64	3.87 4.74	3.94	8.95 9.05	8.99 9.06	12.90 12.59	12.95 12.97											
3	Ditto Heifers	{ 10* 6†	16.4 12.3	16.1 12.7	12.3	32.5 37.3	3.72 3.33	3.79 4.01	3.72	9.02 9.27	9.18 9.40	12.74 12.60	13.01 13.01											
4	Dairy Shorthorn—Non Pedigree	{ 6* 3†	27.7 21.2	27.3 20.9	20.3	55.0 62.4	2.98 3.84	3.72 4.47	3.59	8.76 8.62	8.97 8.85	11.74 12.46	12.69 12.57											
5	Ditto Heifers	{ 1*	10.9	11.5	—	22.4	3.95	4.01	—	9.53	9.59	13.48	13.60											
6	Lincoln Red Shorthorn	{ 2* 2†	27.5 20.3	26.1 20.8	19.5	53.6 60.6	4.12 3.21	4.51 4.63	3.64	8.79 8.66	9.10 8.90	12.91 11.87	13.61 13.53											
7	Ditto Heifers	{ 3* 3†	19.5 15.1	18.7 14.5	14.2	38.2 43.8	4.74 3.62	4.53 4.05	3.86	9.10 8.99	9.36 9.09	13.84 13.14	12.74 12.74											
8	British Friesian	{ 1* 16†	33.6 24.2	33.2 24.4	24.1	66.8 72.7	2.90 3.81	3.10 3.90	3.59	8.74 8.76	8.88 8.88	11.64 12.57	11.98 12.78											
9	Ditto (over 3 and under 5 years)	{ 1* 9†	36.7 22.9	40.6 22.5	22.5	77.3 67.9	3.76 3.30	4.27 3.31	3.75	8.88 8.04	8.99 8.67	12.64 13.26	12.35 12.35											
10	Ditto Heifers	{ 4* 8†	20.4 15.5	20.3 16.0	16.1	40.7 47.6	3.57 3.59	3.49 3.62	3.88	8.69 9.01	8.98 8.90	12.26 12.52	12.47 12.76											
11	South Devon (Herd Book Society)	{ ... 1†	25.1	22.4	23.0	70.5	4.93	4.95	3.72	9.35	9.37	14.28	13.08											
14	Devon	{ 1*	24.4	25.1	—	49.5	4.15	5.12	—	8.99	9.06	13.14	14.18											
15	Red Poll	{ 1†	25.8 20.8	25.4 20.3	20.0	51.2 61.1	4.38 4.03	4.49 3.86	3.64	9.04 9.23	9.14 9.16	13.32 13.02	13.63 12.68											
16	Ditto (over 3 and under 5 years)	{ 3* 3†	20.4 16.2	21.0 13.6	15.6	41.4 48.4	4.41 3.77	4.10 3.71	3.67	9.20 9.50	9.19 9.23	13.61 12.94	13.29 12.81											

* Milked twice daily.

† Milked thrice daily.

TABLE V.—QUANTITY AND QUALITY OF MILK. 1926 SHOW—Continued.

Class No.	BREED.	No. of Cows	Average Weight of Milk.		Average Composition of Milk.									
			Morn.		Total Weight of Milk.	Fat.		Solids—not Fat.		Total Solids.				
			lbs.	lbs.		Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
17	Red Poll Heifers	3* 5†	17.8 17.4 14.4	17.4 14.5 14.1	35.2 43.0	3.89 3.65	4.19 3.90	9.36 9.21	9.17 9.20	13.55 13.11	12.86	13.06 12.85	13.11	12.86
18	Blue Albion	5*	20.2	29.8	59.0	3.68	3.96	—	8.67	8.83	—	12.35	12.79	—
19	Ditto Heifers	3*	15.2	15.4	30.6	4.06	4.52	—	9.17	9.08	—	13.23	13.60	—
20	Welsh Black...	1* 1†	22.6 12.8	21.8 12.6	44.4 38.0	3.46 4.55	3.92 4.40	9.42 9.40	9.46 9.45	13.34 13.80	—	12.92 14.00	13.84	13.56
21	Ayrshire	14†	21.3	21.2	63.1	3.95	4.67	9.04	9.17	13.84	13.69	13.12	13.84	13.69
22	Ditto Heifers	12†	15.0	15.4	45.5	3.73	4.55	—	9.26	9.34	—	12.99	13.89	14.09
23	Guernsey	4* 2†	19.7 17.0	19.2 17.1	38.9 52.0	3.66 4.99	4.09 5.50	—	8.98 9.35	9.25 9.50	—	12.64 14.34	13.34 15.00	16.31
24	Ditto (over 3 and under 5 years)	4* 1†	17.8 14.1	17.7 13.9	35.5 42.6	4.66 5.15	4.53 5.56	—	8.96 9.00	9.62 9.11	—	13.62 14.14	14.05 14.56	14.70
25	Ditto Heifers	9*	13.2	13.6	26.8	4.40	4.90	—	9.15	9.33	—	13.55	14.23	—
26	Jersey	12* 1†	19.7 14.6	20.3 12.5	40.0 40.4	4.90 7.06	5.05 6.28	—	9.15 9.98	9.12 10.12	—	14.05 17.04	14.17 16.40	19.60
27	Ditto (over 3 and under 5 years)	9* 1†	18.2 10.7	18.9 11.3	37.1 32.3	4.89 5.75	5.27 6.46	—	9.24 9.07	9.26 9.16	—	14.13 14.82	14.47 15.62	16.34
28	Ditto Heifers	11* 1†	11.9 11.5	14.3 13.2	26.2 36.6	4.07 4.46	4.76 6.81	—	9.55 8.86	9.33 9.07	—	13.62 13.32	14.09 15.88	14.74
29	Kerry	3*	25.9	25.5	51.4	3.80	4.42	—	9.09	9.26	—	12.89	13.08	—
30	Ditto Heifers	4*	14.2	15.1	29.3	3.95	4.22	—	9.25	9.21	—	13.20	13.43	—
31	Dexter	2* 1†	17.6 11.8	17.0 12.1	34.6 35.1	3.39 3.74	3.71 4.92	—	8.93 8.66	9.31 8.62	—	12.32 12.40	13.02 13.54	12.62

* Milked twice daily.

† Milked thrice daily.

TABLE VI.—NUMBER OF ANIMALS YIELDING MILK DEFICIENT IN FAT AND OTHER SOLIDS.

Breed and Class.	Less than 3 per cent. of Fat.												Less than 8.5 per cent. of other Solids.											
	1914	1915	1919	1920	1921	1922	1923	1924	1925	1926	1914	1915	1919	1920	1921	1922	1923	1924	1925	1926				
Dairy Shorthorn—Pedigree ...	2	6	5	2	4	6	2	1	1	0	0	0	1	0	1	0	2	1	0	0	0			
Ditto (over 3 and under 5 years) ...	3	1	2	3	5	2	0	3	2	7	0	0	0	0	0	0	0	0	0	0				
Dairy Shorthorn—Non-Pedigree ...	4	4	1	2	1	1	0	1	0	4	0	0	1	0	0	0	1	0	3	0				
Ditto Heifers ...	2	1	2	0	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto Heifers ...	2	3	0	4	3	3	1	4	7	0	0	0	0	0	0	0	0	0	0	0				
Lincoln Red Shorthorn ...	2	2	2	1	0	2	1	1	5	3	0	0	1	1	3	3	2	3	2	0				
Ditto Heifers ...	4	5	2	12	0	6	4	1	1	0	0	0	0	2	0	0	0	0	0	0				
British Friesian ...	1	1	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto (over 3 and under 5 years) ...	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto Heifers ...	0	0	5	1	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0				
South Devon (Herd Book Society) ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto (Recorded Cattle Society) ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Devon ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Red Poll ...	0	0	1	2	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto (over 3 and under 5 years) ...	1	3	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto Heifers ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Blue Albion ...	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto Heifers ...	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Welsh Black ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ayrshire ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto Heifers ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Guernsey ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto (over 3 and under 5 years) ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto Heifers ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Jersey ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto (over 3 and under 5 years) ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto Heifers ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Kerry ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto Heifers ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Dexter ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ditto Heifers ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total	22	29	23	34	18	56	21	36	25	28	2	0	7	23	18	12	12	17	17	23				
Number of Animals Tested	105	85	145	183	220	253	219	289	226	233	105	85	145	183	220	273	219	289	226	233				

CLASS 1.—DAIRY SHORTHORN COWS (ENTERED IN OR ELIGIBLE FOR COATES'S HERD BOOK, OR ITS PEDIGREE SENT FOR SUCH ENTRY PREVIOUS TO THE SHOW. BORN ON OR PREVIOUS TO 1ST AUGUST, 1921).

MILKING TRIALS, 1926.

Number Name	1 Watercress Hilda 2nd.	2 Thurham Barrington 4th.	9 Combebank Johnby.	10 Pearl 11th.	11 Histon Wild Queen
Born	Mar. 20, 1919.	Dec. 15, 1920.	May 9, 1917.	Mar. 22, 1919.	Sept. 2, 1917.
Live weight, in lbs.	1,504	1,352	1,200	1,444	1,458
Last Calved	Sept. 28.	Sept. 16.	Sept. 16.	Sept. 4.	Sept. 29.
Days since Calving	20	32	32	44	19
Weight of Milk, 1st day	Morn. Even. 21.6 23.7	Morn. Aft. Even. 18.5 20.1 14.9	Morn. Aft. Even. 20.1 19.4 18.2	Morn. Even. 28.9 28.3	Morn. Even. 31.4 31.3
Weight of Milk, 2nd day	22.6 23.2	18.5 19.5 13.6 19.2	18.2 17.6 19.1	26.3 26.6	30.3 30.6
Total	44.2	38.0	37.0	55.2	61.9
Average	22.1	19.0	18.5	27.6	30.95
Percentage (Fat	3.41	4.52	3.17	3.72	3.57
Composition of Solids other than Fat	8.95 9.07	8.73 8.98	8.97 8.71	8.88 9.10	8.65 8.64
the Milk. Total Solids	12.36 13.76	13.78 13.80	12.14 12.92	12.96 12.82	13.02 13.42
Actual weight of Fat, in lbs.	0.755 1.10	0.69 0.82	0.61 0.78	0.76 0.76	0.98 1.20
Calculation of Points multiply by 20	15.10 22.0	13.80 23.2	12.2 15.6	15.2 20.33	19.6 24.0
Actual weight of Solids other than Fat, in lbs.	1.93 2.13	1.42 1.53	1.72 1.62	1.65 2.5116	2.3744 2.81
Calculation of Points multiply by 4	7.92 8.52	5.68 6.12	6.88 6.48	6.60 10.05	9.50 11.24
Points For Weight of Milk (lbs.)	45.55	49.90	56.30	55.05	61.8
For weight of Fat (lbs. × 20)	37.1	53.4	43.0	40.13	53.6
For weight of Solids other than Fat (lbs. × 4)	16.44	17.92	20.00	19.55	21.96
Total Points for Milk Deductions	99.1	121.2	119.3	114.73	137.4
TOTAL POINTS GAINED FOR MILK	99.1	121.2	119.3	114.73	137.4
Points for time since Calving	—	—	—	0.9	—
TOTAL POINTS GAINED	99.1	121.2	119.3	115.63	137.4
Remarks and Awards	...	Reserve.	Highly Commended	Highly Commended.	1st Prize; Reserve, Desborough Cup; Equal, Shorthorn Society's Prize.

CLASS 1.—DAIRY SHORTHORN COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1921)—Continued.

Number Name	12 Longhills Belle 2nd.	17 Rosette Prim 4th.	18 Louie 7th.	19 Pias Power Fairy.	24 Backwood Seraphina.
Born	Jan. 13, 1920. 1,554	Feb. 17, 1919. 1,561	April 20, 1919. 1,553	Oct. 4, 1920. 1,680	June 5, 1920. 1,830
Live weight, in lbs.	July 25. 85	Sept. 17. 31	Sept. 6. 42	Aug. 25. 54	Aug. 30. 49
Last Calved	...	...	...	...	...
Days since Calving	...	...	...	...	...
Weight of Milk, 1st day	Morn. Even. 23.8 21.0	Morn. Even. 24.9 26.0	Morn. Even. 33.3 31.3	Morn. Even. 17.6 17.0	Morn. Even. 28.4 29.5
Weight of Milk, 2nd day	24.1 20.8	26.2 25.4	32.7 31.3	16.8 18.4	29.5 31.7
Total	47.9 41.8	51.1 51.4	66.0 62.6	34.4 35.4	57.9 61.2
Average	23.95 20.9	25.55 25.7	33.0 31.3	17.2 17.7	28.95 30.6
Percentage (Fat	4.64 3.80	4.70 4.31	3.27 3.31	3.27 5.70	3.28 5.66
Composition of Solids other than Fat	8.96 8.98	8.78 8.95	8.79 9.25	8.29 8.80	8.68 9.44
the Milk. (Total Solids	13.60 12.78	13.48 13.26	12.06 12.56	11.56 14.50	11.96 15.10
Actual weight of Fat, in lbs.	1.11 0.795	1.2008 1.1077	1.08 1.035	0.56 1.015	0.95 1.73
Calculation of Points multiply by 20	22.2 15.90	24.02 22.15	21.6 20.70	11.2 20.30	19.0 34.6
Actual weight of Solids other than Fat, in lbs.	2.14 1.88	2.243 2.30	2.90 2.90	1.42 1.57	2.52 2.88
Calculation of Points multiply by 4	8.56 7.52	8.97 9.20	11.60 11.60	5.68 6.28	10.08 11.52
Points—	44.85	51.25	64.8	34.9	50.55
For weight of Milk (lbs.)	38.1	46.17	42.3	31.5	53.60
For weight of Fat (lbs. × 20)	16.08	18.17	23.2	11.96	21.6
For weight of Solids other than Fat (lbs. × 4)	99.0	115.59	129.8	78.4	134.8
Total Points for Milk	—	—	—	10.0	—
Deductions	99.0	115.59	129.8	68.4	134.8
TOTAL POINTS GAINED FOR MILK	—	—	—	—	—
Points for time since Calving	4.5	—	0.2	1.4	0.9
TOTAL POINTS GAINED	103.5	115.59	130.0	69.8	135.7
Remarks and Awards	Highly Commended; Equal, Shorthorn Society's Prize.	Highly Commended.	3rd Prize.		2nd Prize.

CLASS 2.—DAIRY SHORTHORN COWS (ENTERED IN OR ELIGIBLE FOR COATES' HERD BOOK, OR ITS PEDIGREE SENT FOR SUCH ENTRY PREVIOUS TO THE SHOW. BORN AFTER 1ST AUGUST, 1921, AND PREVIOUS TO 1ST AUGUST, 1923).

Number Name ..	25 Kingsthorpe Countess Ruby 4th.	26 Penwitham Rosemary.	27 Loughills Darlington 3rd.	28 Loughills Briar.	36 Ocell Duchess.
Born ..	Oct. 9, 1922. 1,356	Oct. 4, 1921. 1,228	Jan. 30, 1923. 1,193	Sept. 26, 1922. 1,246	Oct. 13, 1922. 1,383
Last Calved ..	May 24. 147	Sept. 17. 31	Sept. 23. 25	Sept. 21. 27	Oct. 4. 14
Days since Calving ..	...	...	...	...	...
Weight of Milk, 1st day ..	Morn. Even. 14.2 12.0	Morn. Even. 19.6 19.8	Morn. Aft. Even. 18.3 16.1 15.0	Morn. Aft. Even. 16.1 15.4 15.9	Morn. Even. 24.9 24.1
Weight of Milk, 2nd day ..	11.8 12.4	20.4 19.6	16.1 16.5 16.5	17.7 16.4	23.8 23.8
Total ..	26.0 24.4	40.0 39.4	34.4 32.6 31.5	32.9 33.1 32.3	48.7 47.9
Average ..	13.0 12.2	20.0 19.7	17.2 16.3 15.75	16.45 16.55 16.15	24.95 23.95
Percentage Fat ..	3.88 5.19	3.28 3.82	4.15 5.01 4.98	3.95 4.79 4.06	3.63 3.73
Composition of Solids other than Fat ..	8.14 7.99	9.08 9.30	9.67 9.77 9.42	9.33 9.17 9.20	8.97 8.73
the Milk. Total Solids ..	12.02 13.18	12.36 13.12	13.82 14.78 14.40	13.28 13.96 13.26	12.60 12.46
Actual weight of Fat, in lbs. ..	0.505 0.635	0.66 0.75	0.71 0.82 0.79	0.65 0.79 0.66	0.81 0.86
Calculation of Points multiply by 20 ..	10.10 12.70	13.2 15.0	14.20 16.40 15.8	13.00 15.80 13.2	16.2 17.9
Actual weight of Solids other than Fat, in lbs. ...	1.06 0.975	1.82 1.83	1.66 1.59 1.48	1.54 1.52 1.49	2.17 2.10
Calculation of Points multiply by 4 ..	4.24 3.900	7.28 7.32	6.64 6.36 5.92	6.16 6.08 5.96	8.63 8.4
Points—	25.2	39.7	49.25	49.15	48.3
For weight of Milk (lbs.)...	22.5	28.2	46.4	42.0	34.1
For weight of Fat (lbs. x 20) ..	8.14	14.6	18.2	18.20	17.08
For weight of Solids other than Fat (lbs. x 4) ..	56.1	82.5	114.6	109.4	99.5
Total Points for Milk ..	20.0	—	—	—	—
Deductions ..	36.1	82.5	114.6	109.4	99.5
TOTAL POINTS GAINED FOR MILK ..	10.7	—	—	—	—
Points for time since Calving ..	46.8	82.5	114.6	109.4	99.5
TOTAL POINTS GAINED ..	...	...	...	...	...
Remarks and Awards ..	...	...	3rd Prize.	Reserve.	Highly Commended.

CLASS 2.—DAIRY SHORTHORN COWS (BORN AFTER 1ST AUGUST, 1921, AND PREVIOUS TO 1ST AUGUST, 1923)—Continued.

Number Name	37 Histon Lady Blanche.	38 Aldenhams Kirkclevington 2nd.	39 Aldenhams Woodcut.	43 Barrington Lucy.	46 Ancliffe Bentley 6th
Born	Oct. 5, 1922. 1,396	July 4, 1922. 1,389 Aug. 11. 68	Nov. 5, 1922. 1,376 Aug. 20. 30	April 4, 1923 1,158 Aug. 19. 60	Sept. 15, 1922. 1,213 Sept. 25. 23
Lave weight, in lbs.	...	...	...	...	...
Last Calved	Sept. 25 23	...	...	...	...
Days since Calving	...	...	...	...	...
Weight of Milk, 1st day	Morn. Even. 18-0 18-2	Morn. Aft. Even. 22-4 22-0 18-0	Morn. Even. 21-3 21-9	Morn. Even. 19-0 18-0	Morn. Even. 23-8 22-3
Weight of Milk, 2nd day	21-0 19-5	21-6 19-5	20-1	20-7 18-3	23-3 24-1
Total	39-9 37-7	43-8 43-6 38-4	24-1 42-0	40-6 36-3	47-1 46-4
Average	19-95 18-85	21-9 21-8 19-2	22-05 21-0	20-3 18-15	23-55 23-2
Percentage of Fat	8-24 8-11	2-60 4-21 2-80	8-09 3-19	3-90 3-57	4-92 4-01
Composition of the Milk { Solids other than Fat	8-04 8-03	8-58 8-71 8-77	8-83 9-11	9-14 9-43	9-27 9-55
Total Solids	12-18 12-04	11-18 12-02 11-06	12-02 12-30	13-04 13-00	14-20 13-56
Actual weight of Fat, in lbs.	0-645 0-59	0-57 0-92 0-555	0-68 0-67	0-79 0-65	1-16 0-93
Calculation of Points multiply by 20	12-9 11-8	11-40 18-40 11-1	13-6 13-4	15-8 13-0	23-2 18-6
Actual weight of Solids other than Fat, in lbs.	1-78 1-68	1-88 1-90 1-68	1-96 1-91	1-86 1-71	2-18 2-14
Calculation of Points multiply by 4	7-12 6-72	7-52 7-60 6-72	7-84 7-04	7-44 6-84	8-72 8-56
Points—	38-8 34-7	62-0 40-0 41-8	43-05 27-0 15-48	38-45 28-8 41-28	46-75 41-8 17-28
For weight of Milk (lbs. x 20)	...	...	...	...	...
For weight of Fat (lbs. x 20)	...	...	...	...	...
For weight of Solids other than Fat (lbs. x 4)	...	...	...	...	...
Total Points for Milk	77-3	125-6 20-0	85-5	81-5	105-8
Deductions	...	...	...	...	...
TOTAL POINTS GAINED FOR MILK	77-3	105-6	85-5	81-5	105-8
Points for time since Calving	...	2-8	1-0	2-0	...
TOTAL POINTS GAINED	77-3	108-4	86-5	83-5	105-8
Remarks and Awards	...	Highly Commended.	Highly Commended	Highly Commended ; Equal, Shorthorn Society's Prize.	Highly Commended.

CLASS 2.—DAIRY SHORTHORN COWS (BORN AFTER 1ST AUGUST, 1921, AND PREVIOUS TO 1ST AUGUST, 1923)—Continued.

Number Name ..	50 Greataw Blossom.	51 Greataw Swance.	52 Greataw Darling.	53 Lavington Eclipse.	54 Grand Duchess Oxford 30th.
Born ..	Dec. 30, 1921.	Feb. 5, 1922.	Nov. 7, 1921.	Oct. 16, 1921.	July 10, 1922.
Live weight, in lbs. ...	1,394	1,482	1,298	1,311	1,315
Last Calved ...	Sept. 22.	Sept. 18.	Sept. 9.	Oct. 4.	Sept. 21.
Days since Calving ...	26	30	39	14	27
Weight of Milk, 1st day	Morn. Even.	Morn. Even.	Morn. Even.	Morn. Even.	Morn. Aft. Even.
Weight of Milk, 2nd day	29-2 33-3	23-6 22-7	20-0 19-9	20-8 20-7	24-3 22-2
	30-3 30-4	23-8 19-9	16-9 19-1	20-0 20-4	23-1 22-0
Total	59-5 63-7	47-4 42-6	36-9 39-0	40-8 41-1	47-4 44-2
Average	29-75 31-85	23-70 21-3	18-45 19-5	20-4 20-55	23-7 22-1
Percentage { Fat	3-91 4-17	4-24 3-13	3-05 4-09	4-02 4-55	3-45 4-04
Composition of { Solids other than Fat	9-07 9-03	8-96 9-22	8-37 9-15	9-62 9-75	8-63 8-60
the Milk. { Total Solids	12-98 13-20	13-20 12-40	11-42 13-24	13-64 14-30	12-08 13-54
Actual weight of Fat, in lbs.	1-16 1-53	1-0 0-68	0-56 0-80	0-82 0-935	0-82 1-09
Calculation of Points multiply by 20	23-2 26-6	20-0 13-6	11-2 16-0	16-40 18-70	16-40 21-80
Actual weight of Solids other than Fat, in lbs.	2-70 2-88	2-12 1-96	1-54 1-78	1-96 2-00	2-05 1-90
Calculation of Points multiply by 4	10-8 11-52	8-48 7-84	6-16 7-12	7-84 8-00	8-20 7-60
For weight of Milk (lbs.)	61-6	45-0	37-95	40-95	67-85
For weight of Fat (lbs. > 20)	34-8	33-0	17-5	55-1	35-0
For weight of Solids other than Fat (lbs. × 4)	22-32	16-32	13-28	13-84	23-48
Total Points for Milk	133-7	94-9	78-4	91-9	146-3
Deductions	—	—	10-0	—	—
TOTAL POINTS GAINED FOR MILK	133-7	94-9	68-4	91-9	146-3
Points for time since Calving	—	—	—	—	—
TOTAL POINTS GAINED	133-7	94-9	68-4	91-9	146-3
Remarks and Awards	2nd Prize ; Equal Shorthorn Society's Prize.	Highly Commended.	Highly Commended.	Highly Commended.	1st Prize, and Desborough Cup.

CLASS 3.—DAIRY SHORTHORN HEIFERS (ENTERED IN OR ELIGIBLE FOR COATES' HERD BOOK.
BORN ON OR AFTER 1ST AUGUST, 1923).

Number Name ...	56 Thelveton Wild Lilac.	57 Chalfield Rose 12th.	63 Thornby Jessica 2nd.	64 Thornby Ringlet 8th.	65 Thornby Pretty Maid.
Born ...	Mar. 30, 1924.	Jan. 31, 1924.	Sept. 8, 1923.	Sept. 22, 1923.	Sept. 20, 1923.
Live weight, in lbs. ...	999	1,241	931	1,056	982
Last Calved ...	Sept. 29.	Oct. 4.	Sept. 30.	Sept. 15.	Sept. 24.
Days since Calving ...	19	14	18	38	24
Weight of Milk, 1st day ...	Morn. Even.	Morn. Aft. Even.	Morn. Even.	Morn. Even.	Morn. Even.
Weight of Milk, 2nd day ...	15.3 14.8	13.3 15.1 12.5	15.1 14.6	21.3 21.4	15.8 15.5
Total ...	13.3 12.5	13.1 14.4 13.7	15.0 14.9	21.5 20.9	15.6 15.2
Average ...	28.6 27.3	26.4 29.5 26.2	30.1 29.5	42.8 42.3	31.4 30.7
Percentage { Fat ...	14.3 13.65	13.2 14.75 13.1	15.05 14.75	21.4 21.15	15.7 15.35
Composition of { Solids other than Fat ...	3.28 8.12	3.42 5.03 3.50	3.69 3.95	3.01 3.88	4.48 4.48
the Milk. { Total Solids ...	8.34 8.56	9.52 9.39 9.40	9.21 9.53	8.29 8.64	9.14 9.39
Actual weight of Fat, in lbs. ...	11.62 11.68	12.94 14.42 12.90	12.90 13.48	11.30 12.52	13.62 13.84
Calculation of Points multiply by 20 ...	0.47 0.425	0.45 0.74 0.46	0.55 0.58	0.65 0.82	0.70 0.69
Actual weight of Solids other than Fat, in lbs. ...	9.4 8.5	9.00 14.80 9.2	11.0 11.6	13.0 10.4	14.0 13.8
Calculation of Points multiply by 4 ...	1.19 1.17	1.26 1.39 1.23	1.39 1.41	1.78 1.83	1.43 1.44
Points—	4.76 4.68	5.04 5.56 4.92	5.56 5.64	7.12 7.32	5.72 5.76
For weight of Milk (lbs.) ...	27.95	41.05	29.8	42.55	31.05
For weight of Fat (lbs. x 20) ...	17.9	33.0	22.6	29.4	27.6
For weight of Solids other than Fat (lbs. x 4) ...	9.44	15.52	11.2	14.44	11.48
Total Points for Milk ...	55.3	89.6	63.6	86.4	70.3
Deductions ...	10.0	—	—	10.0	—
TOTAL POINTS GAINED FOR MILK ...	45.3	89.6	63.6	76.4	70.3
Points for time since Calving ...	—	—	—	—	—
TOTAL POINTS GAINED ...	45.3	89.6	63.6	76.4	70.3
Remarks and Awards ...	...	2nd Prize.	Highly Commended.	Highly Commended.	Highly Commended.

CLASS 3.—DAIRY SHORTHORN HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1923)—Continued.

Number Name	...	...	...	...	...	66 Kingsthorpe Countess Ruby 5th. Sept. 7, 1923. 1,152 May 31. 140	69 Thorndale Belle 30th. Dec. 20, 1923. 1,020 Aug. 31. 48	70 Longhills Lawsley 4th. April 28, 1924. 1,058 Aug. 31. 48	71 Beanaire Lizzie April 3, 1924. 1,161 Aug. 22. 57	72 Biddestone Mavourneen. Jan. 12, 1924. 1,242 Sept. 16. 32
Born	...	...	...	...	...	Morn. Even. 17-2 16-6 16-0 17-1	Morn. Aft. Even. 12-2 11-1 10-4 10-9 10-6 9-9	Morn. Aft. Even. 11-4 11-3 11-8 12-7 11-8	Morn. Even. 12-6 12-7 13-4 11-5	Morn. Even. 17-1 15-6 16-1 16-1
Live weight, in lbs.	...	...	...	...	...	33-2 33-7	23-1 21-7 20-3	23-5 24-0 23-7	26-0 24-2	33-2 31-6
Last Calved	...	...	...	...	...	16-6 16-85	11-55 10-85 10-15	11-75 12-0 11-85	13-0 12-1	16-6 15-8
Days since Calving	...	...	...	...	...	3-83 4-21 8-75 8-73 12-58 12-94 0-63 0-71	3-55 3-93 3-67 9-13 9-51 9-37 12-68 13-44 13-04 0-41 0-425 0-37	2-86 3-02 3-39 9-46 9-70 9-67 12-82 12-72 12-06 0-835 0-86 0-4	2-73 3-81 9-09 9-33 11-82 13-14 0-855 0-46	8-04 3-45 9-12 9-39 12-16 12-84 0-505 0-545
Weight of Milk, 1st day	...	...	...	...	...	12-6 14-2	8-20 8-50 7-4	6-7 7-20 8-0	7-10 9-2	10-1 10-9
Weight of Milk, 2nd day	...	...	...	...	...	1-45 1-47	1-05 1-03 0-95	1-12 1-16 1-13	1-18 1-16	1-52 1-48
Total	...	...	...	...	...	5-80 5-88	4-20 4-12 3-80	4-48 4-64 4-52	4-72 4-64	6-08 5-02
Average	...	...	...	...	...	33-45 26-8 11-68	32-55 24-1 12-12	35-60 21-00 13-64	25-1 16-3 9-36	32-4 21-0 12-0
Percentage Fat	...	...	...	...	...	71-9	68-8	71-1 10-0	50-8 10-0	65-4
Composition of Solids other than Fat	...	...	...	...	...	71-9	68-8	61-1	40-8	65-4
the Milk. Total Solids	...	...	...	...	...	10-0	0-8	0-8	1-7	—
Actual weight of Fat, in lbs.	...	...	...	...	...	81-9	60-6	61-9	42-5	65-4
Calculation of Points multiply by 20	...	...	...	...	...	Reserve.	Highly Commended.			
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...
Calculation of Points multiply by 4	...	...	...	...	...
For Weight of Milk (lbs.)	...	...	...	...	...
For weight of Fat (lbs. × 20)	...	...	...	...	...
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	...
Total Points for Milk	...	...	...	...	...
Deductions	...	...	...	...	...
TOTAL POINTS GAINED FOR MILK	...	...	...	...	...
Points for time since Calving	...	...	...	...	...
TOTAL POINTS GAINED	...	...	...	...	...
Remarks and Awards	...	...	...	...	...

CLASS 3.—DAIRY SHORTHORN HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1923)—Continued.

Number Name ...	76 Checkendon Clara	77 Sweet Rosette 11th.	82 Winsome Rosette	85 Lady Mary 7th.	86 Elsie Widgey.
Born ...	May 18, 1924.	Aug. 16, 1923.	Jan. 30, 1924.	Dec. 10, 1923	Aug 7, 1923.
Live weight, in lbs. ...	1,138	1,198	1,010	1,261	1,244
Last Calved ...	Sept. 23.	Oct. 5.	Sept. 19.	May 13.	Sept. 2.
Days since Calving ...	25	13	29	158	46
Weight of Milk, 1st day ...	Morn. Even.	Morn. Even.	Morn. Even	Morn. Aft. Even.	Morn. Aft. Even.
Weight of Milk, 2nd day ...	12.4 13.8	23.9 23.3	16.6 17.0	12.9 11.9	10.3 12.1
Total	15.1 13.6	19.2 16.6	16.0 16.1	12.5 11.9	10.9 11.6
Average	27.5 27.4	43.1 39.9	32.6 33.1	25.4 24.1	21.2 23.7
Percentage { Fat ...	13.75 13.7	21.55 19.95	16.3 16.55	12.7 12.05	10.6 11.85
Composition of { Solids other than Fat ...	4.79 4.87	3.87 3.42	3.39 3.59	2.80 3.04	3.74 3.99
the Milk. { Total Solids ...	9.73 9.29	9.29 9.50	9.19 9.35	8.90 9.24	9.06 9.29
Actual weight of Fat, in lbs. ...	14.52 14.16	13.16 12.92	12.58 12.94	11.70 12.28	12.80 13.28
Calculation of Points multiply by 20 ...	0.66 0.665	0.83 0.68	0.55 0.59	0.36 0.365	0.40 0.47
Actual weight of Solids other than Fat, in lbs. ...	13.2 13.3	16.6 13.6	11.0 11.8	7.20 7.30	8.00 9.40
Calculation of Points multiply by 4 ...	1.34 1.28	2.0 1.90	1.5 1.55	1.13 1.12	0.96 1.1
Points—	5.36 5.12	8.0 7.6	6.0 6.2	4.52 4.48	3.84 4.4
For Weight of Milk (lbs.) ...	27.45	41.5	32.85	37.15	33.80
For weight of Fat (lbs. x 20) ...	26.5	30.2	22.8	26.0	22.50
For weight of Solids other than Fat (lbs. x 4) ...	10.48	15.6	12.2	13.36	12.48
Total Points for Milk ...	64.4	87.3	67.9	73.0	72.3
Deductions ...	—	—	—	10.0	—
TOTAL POINTS GAINED FOR MILK ...	64.4	87.3	67.9	63.0	72.3
Points for time since Calving ...	—	—	—	11.8	0.6
TOTAL POINTS GAINED ...	64.4	87.3	67.9	74.8	72.9
Remarks and Awards ...		3rd Prize; Equal Shorthorn Society's Prize.	Highly Commended.	Highly Commended.	Highly Commended.

CLASS 3.—DAIRY SHORTHORN HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1923)—Continued.

Number Name	87 Iwerne Mary Duchess 3rd.	88 Ashle Cran	89 Plas Power Janette 2nd	90 Foxbury Bridesmaid	91 Greattew Madge.
Born	Oct 27, 1923.	Nov 1, 1923.	Jan. 1, 1924.	May 8, 1924.	Sept 2, 1923
Live weight, in lbs.	1,070	1,191	1,090	1,120	1,178
Last Calved	Oct 1.	Sept. 13.	Sept. 12.	Oct. 1.	May 23.
Days since Calving	17	35	36	17	148
Weight of Milk, 1st day	Morn. 14.0 Aft 15.0	Morn. 13.7 Even. 13.7	Morn. 20.2 Even 19.4	Morn. 17.2 Even. 16.9	Morn. 16.9 Even. 16.7
Weight of Milk, 2nd day	14.3	14.6	20.0	17.3	16.9
Total	28.3	28.9	40.2	34.5	33.8
Average	14.15	14.85	20.1	17.25	16.9
Percentage (Fat	8.58	8.56	4.59	3.38	3.64
Composition of Solids other than Fat	9.56	9.18	9.05	9.41	8.72
the Milk. (Total Solids	13.14	12.74	13.64	12.74	12.36
Actual weight of Fat, in lbs.	0.51	0.50	0.92	0.57	0.62
Calculation of Points multiply by 20	10.20	10.0	18.4	11.4	12.4
Actual weight of Solids other than Fat, in lbs.	1.35	1.37	1.82	1.62	1.47
Calculation of Points multiply by 4	5.40	5.48	7.28	6.48	5.88
For weight of Milk (lbs.)	48.90	28.5	39.9	34.25	33.1
For weight of Fat (lbs. × 20)	39.2	19.2	28.8	23.4	24.2
For weight of Solids other than Fat (lbs. × 4)	16.42	10.52	14.52	12.96	11.56
Total Points for Milk	99.5	58.2	73.2	70.6	68.9
Deductions	—	—	10.0	—	—
TOTAL POINTS GAINED FOR MILK	99.5	58.2	63.2	70.6	68.9
Points for time since Calving	—	—	—	—	10.8
TOTAL POINTS GAINED	99.5	58.2	63.2	70.6	79.7
Remarks and Awards	1st Prize; Equal, Shorthorn Society's Prize.			Highly Commended	Highly Commended.

CLASS 3.—DAIRY SHORTHORN HELPERS (BORN ON OR AFTER 1ST AUGUST, 1923).—Continued.

Number Name	93 Greatw Christmas Eve.	94 Sudborough Louise 3rd.	95 Kelmscott Rose 89th.	96 Orfold Lily 3rd.	97 Orfold Gentle 10th.
Born	Dec. 24, 1923. 1,181	April 24, 1924. 1,125	Dec. 24, 1923. 1,032	Jan. 21, 1924. 1,100	Feb. 23, 1924. 1,040
Live weight, in lbs.	17.4	17.7	15.4	14.8	18.2
Last Calved	Sept. 17. 31	Sept. 20. 28	Sept. 10 38	Oct. 5. 13	Sept. 2. 46
Days since Calving	...	...	...	...	...
Weight of Milk, 1st day	Morn. Even. 17.4 17.7	Morn. Even. 11.9 12.0	Morn. Even. 16.1 15.4	Morn. Even. 14.5 14.8	Morn. Even. 18.7 18.2
Weight of Milk, 2nd day	16.2 16.2	11.2 12.0	15.5 16.4	16.2 17.4	19.7 17.6
Total	33.6 33.9	23.1 24.0	31.6 31.8	30.7 32.2	38.4 35.8
Average	16.8 16.95	11.55 12.0	15.8 15.9	15.35 16.1	19.2 17.9
Percentage { Fat	4.77 4.75	2.75 3.48	5.77 5.50	2.92 4.04	3.23 2.54
Composition of { Solids other than Fat	8.97 8.99	9.07 9.14	8.57 8.54	9.28 9.70	9.03 9.56
the Milk. { Total Solids	13.74 13.74	11.82 12.62	14.34 14.04	12.20 13.74	12.26 12.10
Actual weight of Fat, in lbs.	0.80 0.805	0.32 0.42	0.91 0.875	0.45 0.65	0.62 0.455
Calculation of Points multiply by 20	16.0 16.1	6.4 8.4	18.2 17.50	9.0 13.0	12.4 9.1
Actual weight of Solids other than Fat, in lbs.	1.50 1.52	1.05 1.10	1.35 1.36	1.42 1.56	1.74 1.71
Calculation of Points multiply by 4	6.0 6.08	4.20 4.40	5.40 5.44	5.68 6.24	6.96 6.84
Points—					
For weight of Milk (lbs.)	33.75	23.55	31.7	31.45	37.1
For weight of Fat (lbs. X 20)	32.1	14.8	35.7	22.0	21.5
For weight of Solids other than Fat (lbs. X 4)	12.08	8.6	10.84	11.92	13.8
Total Points for Milk	77.9	47.0	78.2	65.4	72.4
Deductions	—	10.0	—	10.0	10.0
TOTAL POINTS GAINED FOR MILK	77.9	37.0	78.2	55.4	62.4
Points for time since Calving	—	—	—	—	0.6
TOTAL POINTS GAINED	77.9	37.0	78.2	55.4	63.0
Remarks and Awards	Highly Commended.		Highly Commended.		

CLASS 4.—DAIRY SHORTHORN COWS (NOT ELIGIBLE FOR CLASSES 1 OR 2).

Number Name	98 Evensa.	100 Harrison.	101 Spot.	102 Quarrendon Daffodil.	104 Rosaline.
Born	1921.	1919.	Feb 6, 1915.	Sept. 2, 1919.	Unknown.
Live weight, in lbs.	1,815	1,406	1,549	1,342	1,263
Last Calved	Sept. 24.	Aug. 12.	Sept. 21.	Aug. 30.	June 2.
Days since Calving	24	67	27	49	138
Weight of Milk, 1st day	Morn. 21.7	Morn. 23.0	Morn. 22.0	Morn. 38.8	Morn. 26.9
Weight of Milk, 2nd day	Aft. 21.4	Even. 26.0	Aft. 22.8	Even. 35.4	Even. 27.3
	20.5	27.7	20.5	33.8	24.8
Total	42.2	53.0	43.3	72.6	51.2
Average	21.1	27.85	21.65	36.3	25.6
Percentage { Fat	8.45	3.23	4.28	3.43	2.25
Composition of { Solids other than Fat	8.47	8.21	8.88	8.77	2.53
the Milk. { Total Solids	11.92	11.44	13.22	12.20	8.41
Actual weight of Fat, in lbs.	0.73	0.90	0.95	1.24	—
Calculation of Points multiply by 20	14.60	18.0	19.00	24.8	—
Actual weight of Solids other than Fat, in lbs.	1.99	2.3	1.99	3.19	—
Calculation of Points multiply by 4	7.16	9.2	7.96	12.76	—
Points—					
For weight of Milk (lbs.)	62.95	54.35	63.65	70.1	—
For weight of Fat (lbs. × 20)	50.0	33.9	59.8	51.4	—
For weight of Solids other than Fat (lbs. × 4)	22.16	18.4	22.84	24.92	—
Total Points for Milk	135.1	106.7	146.3	146.4	—
Deductions	10.0	10.0	—	—	—
TOTAL POINTS GAINED FOR MILK	125.1	96.7	146.3	146.4	—
Points for time since Calving	—	2.7	—	0.9	—
TOTAL POINTS GAINED	125.1	99.4	146.3	147.3	—
Remarks and Awards	3rd Prize.		2nd Prize; Morrison Challenge Trophy; Dairy Shorthorn Association's Prize	1st Prize.	Disqualified.

CLASS 4.—DAIRY SHORTHORN COWS (NOT ELIGIBLE FOR CLASSES 1 OR 2).—Continued.

Number Name ...	103 Queen.	107 Cowslip.	111 Sweet Pea.	112 Damsel.
Born ...	1919	Unknown.	Unknown.	1919.
Live weight, in lbs. ...	1,282	1,280	1,378	1,324
Last Calved ...	Sept. 12.	Oct 3	Sept. 23.	Aug 3
Days since Calving ...	36	13	23	76
Weight of Milk, 1st day ...	Morn. Even.	Morn. Even	Morn. Aft. Even.	Morn. Even.
Weight of Milk, 2nd day ...	28 0 28 4	25 0 25 0	19 4 19 3	26 3 25 7
	27 5 26 0	19 7 25 4	21 6 20 8	24 9 21 9
Total	55 5 54 4	45 6 50 4	40 8 40 2	51 2 50 6
Average	27 75 27 2	22 8 25 2	20 4 20 1	25 6 25 3
Percentage { Fat	8 55 3 32	2 75 4 51	3 70 3 35	2 67 3 47
Composition of { Solids other than Fat	9 23 9 36	8 81 9 19	8 15 8 73	9 15 8 71
the Milk. { Total Solids	12 78 12 68	11 56 13 70	12 24 12 14	11 82 12 18
Actual weight of Fat, in lbs. ...	0 985 0 91	0 63 1 135	0 77 0 67	0 68 0 88
Calculation of Points multiply by 20	19 70 18 2	12 6 22 70	13 40 13 40	13 6 17 9
Actual weight of Solids other than Fat, in lbs.	2 56 2 54	2 01 2 32	1 73 1 77	2 34 2 20
Calculation of Points multiply by 4	10 24 10 16	8 04 9 28	6 92 7 08	9 36 8 80
Points—				
For Weight of Milk (lbs)	54 05	48 0	60 63	50 9
For weight of Fat (lbs. \times 20)	37 9	35 3	39 2	31 2
For weight of Solids other than Fat (lbs. \times 4)	20 4	17 32	21 12	18 16
Total Points for Milk	113 3	100 6	121 0	100 3
Deductions	—	10 0	20 0	10 0
TOTAL POINTS GAINED FOR MILK	113 3	90 6	101 0	90 3
Points for time since Calving	—	—	—	3 6
TOTAL POINTS GAINED	113 3	90 6	101 0	93 9
Remarks and Awards	Reserve.			

CLASS 6.—LINCOLNSHIRE RED SHORTHORN COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK OF THE LINCOLNSHIRE RED SHORTHORN ASSOCIATION).

Number Name	125 Scothern Mystic.	129 Burton Vic 19th.	132 Burton Hempy 4th.	134. Laugford Damsel 21st
Born	May 20, 1918.	Aug 29, 1922	Feb. 21, 1920.	Oct 9, 1921
Lave weight, in lbs.	1,438	1,460	1,286	1,347
Last Calved	Aug. 30.	Sept 9.	Sept 27.	Oct 1.
Days since Calving	49	39	21	17
Weight of MILK, 1st day	Morn. Aft Even.	Morn. Even.	Morn. Aft Even.	Morn Even.
Weight of MILK, 2nd day	19 7 21 1 19 9	20 7 20 0 19 7	20 1 19 6 19 2	34 8 33 6
	21 2 21 9 19 4	19 8 19 7	20 3 20 5 19 3	34 5 31 2
Total	40 9 43 0 39 3	40 5 39 7	40 4 40 1 38 5	69 3 64 8
Average	20 45 21 5 19 65	20 25 19 85	20 2 20 05 19 25	34 05 32 4
Percentage (Fat	3 66 4 53 3 35	3 13 3 93	2 75 4 73 3 94	5 11 5 09
Composition of Solids other than Fat	8 82 9 01 9 01	8 59 9 17	8 50 8 79 9 01	8 99 9 03
the Milk. Total Solids	12 48 13 54 12 36	11 72 13 10	11 25 13 32 12 98	14 10 14 12
Actual weight of Fat, in lbs.	0 75 0 97 0 65	0 635 0 78	0 535 0 95 0 76	1 77 1 65
Calculation of Points multiply by 20	15 00 19 40 13 0	12 70 15 6	11 1 19 00 15 2	35 4 33 0
Actual weight of Solids other than Fat, in lbs.	1 80 1 94 1 77	1 74 1 82	1 72 1 76 1 74	3 1 2 92
Calculation of Points multiply by 4	7 20 7 76 7 08	6 96 7 28	6 88 7 04 6 96	12 4 11 68
Points				
For Weight of Milk (lbs.)	61 60	40 1	59 50	67 05
For weight of Fat (lbs. \times 20)	47 4	28 3	45 3	98 4
For weight of Solids other than Fat (lbs \times 4)	22 04	14 24	20 88	24 08
Total Points for Milk	131 0	82 6	125 7	159 5
Deductions	—	—	10 0	—
TOTAL POINTS GAINED FOR MILK	131 0	82 6	115 7	159 5
Points for time since Calving	0 9	—	—	—
TOTAL POINTS GAINED	131 9	82 6	115 7	159 5
Remarks and Awards	2nd Prize.		3rd Prize.	1st Reserved Reserve for B D F A Supreme Individual Challenge Trophy

CLASS 7.—LINCOLNSHIRE RED SHORTHORN HEIFERS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK OF THE LINCOLNSHIRE RED SHORTHORN ASSOCIATION. BORN ON OR AFTER 1ST AUGUST, 1923).

Number Name	137 Bendish Lass 11th.	139 Burton Ethel 10th.	140 Burton Sylvia 2nd.	142 Burton Buttercup 13th.	144 Langford Polly 21st.
Born	Oct. 22, 1923. 1,040	Aug. 25, 1923. 1,168	Oct. 5, 1923. 1,102	Jan. 8, 1924. 1,054	Sept. 27, 1923. 1,113
Live weight, in lbs.	10-6	18-9	15-7	15-1	23-0
Last Calved	Sept. 10. 38	Oct. 1. 17	Oct. 2. 16	Sept. 22. 26	Sept. 23. 25
Days since Calving	...	...	...	...	...
Weight of Milk, 1st day	Morn. Aft. Even.	Morn. Even.	Morn. Even.	Morn. Aft. Even.	Morn. Even.
Weight of Milk, 2nd day	19-6 16-6 17-1	18-9 18-2	15-7 16-1	15-1 15-1 14-8	23-0 21-4
	15-4 14-9 14-0	19-6 19-3	15-9 16-3	15-6 14-6 14-4	23-7 21-2
Total	35-0 31-5 31-1	38-5 37-5	31-6 32-4	30-7 29-7 20-2	46-7 42-6
Average	17-5 15-75 15-55	19-25 18-75	15-8 16-2	15-35 14-85 14-6	23-35 21-3
Percentage { Fat	3-60 3-38 3-28	4-13 4-38	4-27 5-46	3-79 4-33 4-10	5-83 3-75
Composition of { Solids other than Fat	8-50 8-62 8-32	9-27 9-42	9-39 9-63	8-79 8-11 8-58	8-63 8-83
the Milk. { Total Solids	12-10 12-00 11-60	13-40 13-80	13-66 15-30	12-58 13-44 12-68	14-46 12-58
Actual weight of Fat, in lbs.	0-63 0-53 0-51	0-795 0-82	0-68 0-87	0-58 0-64 0-60	1-36 0-79
Calculation of Points multiply by 20	12-60 10-60 10-2	15-9 16-4	13-6 17-4	11-60 12-80 12-0	27-2 15-8
Actual weight of Solids other than Fat, in lbs.	1-49 1-36 1-29	1-78 1-76	1-48 1-59	1-85 1-85 1-80	2-01 1-86
Calculation of Points multiply by 4	5-96 5-44 5-16	7-12 7-04	5-92 6-36	5-40 5-40 5-2	8-04 7-44
Points—					
For weight of Milk (lbs.)	48-80	98-0	32-0	44-80	44-65
For weight of Fat (lbs. × 20)	34	32-3	32-0	36-4	43-0
For weight of Solids other than Fat (lbs. × 4)	16-56	14-16	13-28	16-6	15-48
Total Points for Milk	98-8	84-5	75-3	97-2	103-1
Deductions	10-0	—	—	—	—
TOTAL POINTS GAINED FOR MILK	88-8	84-5	75-3	97-2	103-1
Points for time since Calving	—	—	—	—	—
TOTAL POINTS GAINED	88-8	84-5	75-3	97-2	103-1
Remarks and Awards	3rd Prize.	Reserve.	Highly Commended.	2nd Prize.	1st Prize

CLASS 7.—LINCOLNSHIRE RED SHORTHORN HEIFERS
(BORN ON OR AFTER 1ST AUGUST, 1923)—Continued.

Number Name	145 Southern Cowslip 5th.	147 Terling Trix 4th.	148 Terling Torch 18th.	149 Terling Warner 3rd.
Born	Jan. 7, 1924	Nov. 22, 1917.	Nov. 25, 1917.	Mar. 25, 1917.
Live weight, in lbs.	1,222	1,380	1,468	1,554
Last Calved	Oct. 4.	July 30.	Sept. 23.	Sept. 14.
Days since Calving	14	80	25	34
Weight of Milk, 1st day	Morn. Aft. Even.	Morn. Aft. Even.	Morn. Aft. Even.	Morn. Aft. Even.
Weight of Milk, 2nd day	12.2 13.2 11.9	24.1 21.3 19.8	21.8 23.4 20.0	23.8 25.4 25.2
Total	12.7 12.5 13.1	23.7 21.9 21.6	22.5 22.3 22.0	25.4 25.3 23.5
Average	24.9 25.7 25.0	47.8 43.2 41.4	44.3 45.7 42.0	49.2 50.7 48.7
Percentage	12.45 12.85 12.5	23.9 21.6 20.7	22.15 22.85 21.0	24.6 25.35 24.35
Composition of	3.48 4.43 4.21	3.90 4.55 4.10	4.12 4.77 4.58	3.65 4.18 4.15
the Milk.	9.66 9.55 9.43	8.94 9.27 9.38	9.16 9.37 9.28	9.07 9.22 9.19
Actual weight of Fat, in lbs.	13.14 13.98 13.64	12.84 13.82 13.48	13.23 14.14 13.86	12.72 13.40 13.34
Calculation of Points multiply by 20	0.435 0.57 0.53	0.93 0.98 0.85	0.91 1.09 0.96	0.90 1.06 1.01
Actual weight of Solids other than Fat, in lbs.	8.70 11.40 10.6	18.60 19.60 17.0	18.20 21.80 19.2	18.0 21.20 20.2
Calculation of Points multiply by 4	1.20 1.53 1.18	2.14 2.00 1.94	2.03 2.14 1.94	2.23 2.34 2.24
For weight of Milk (lbs.)	4.80 4.92 4.72	8.56 8.00 7.76	8.12 8.56 7.76	8.92 9.36 8.96
For weight of Fat (lbs. × 20)	37.80	66.2	66.00	74.3
For weight of Solids other than Fat (lbs. × 4)	30.7	55.2	55.2	59.4
Total Points for Milk	14.44	24.32	24.44	27.24
Deductions	82.9	145.7	149.6	160.9
TOTAL POINTS GAINED FOR MILK	82.9	145.7	149.6	160.9
Points for time since Calving	—	4.0	—	—
TOTAL POINTS GAINED	82.9	149.7	149.6	160.9
Remarks and Awards	Highly Commended.	Highly Commended	Highly Commended.	Reserve

CLASS 8.—BRITISH FRIESIAN COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1921)—Continued.

Number Name	150 Lavenham Seabreeze.	151 Lavenham Wallen 2nd.	152 Pennybridge Pearl	154 Netherhall Darkie.
Born	Dec. 8, 1920. 1.400 Sept. 4. 44	May 28, 1918. 1.403 Sept. 15. 38	Dec 16, 1920 1.623 Aug. 5 74	Jan 27, 1921. 1.947 Sept. 10. 29
Lave weight, in lbs. ...	...	...	...	...
Last Calved ...	...	...	...	...
Days since Calving ...	...	...	...	...
Weight of Milk, 1st day	Morn. Aft. Even	Morn. Aft. Even	Morn. Aft. Even	Morn. Aft. Even
Weight of Milk, 2nd day	31.4 30.9 31.1	26.7 25.2 24.4	24.4 23.7 21.2	26.0 27.2 26.7
	30.9 30.0 31.3	24.3 26.0 24.1	23.2 24.5 21.5	26.6 29.4 29.1
Total	62.3 60.9 62.4	51.0 51.2 48.5	47.6 48.2 42.7	52.6 56.6 55.8
Average	31.15 30.45 31.2	25.5 25.6 24.25	23.8 24.1 21.35	26.3 28.3 27.9
Percentage (Fat	8.87 8.87 8.88	4.00 4.54 3.90	3.32 3.60 2.52	3.41 3.51 3.00
Composition of Solids other than Fat	8.73 8.60 8.58	9.02 9.20 8.95	8.08 8.35 8.10	8.35 8.51 8.68
the Milk. (Total Solids	12.10 12.86 12.46	13.02 13.74 12.94	— — —	11.76 12.02 11.68
Actual weight of Fat, in lbs.	1.05 1.18 1.21	1.02 1.16 0.97	— — —	0.90 0.96 0.84
Calculation of Points multiply by 20	21.00 23.60 24.2	20.4 23.2 19.4	— — —	18.0 19.8 16.8
Actual weight of Solids other than Fat, in lbs.	2.72 2.73 2.67	2.35 2.36 2.17	— — —	2.20 2.40 2.42
Calculation of Points multiply by 4	10.88 10.92 10.68	9.4 9.44 8.68	— — —	8.8 9.6 9.68
Points—	92.80	75.45	—	52.5
For weight of Milk (lbs.) ...	68.8	63.0	—	54.6
For weight of Fat (lbs. × 20)	32.48	27.52	—	28.08
For weight of Solids other than Fat (lbs. × 4)	—	—	—	—
Total Points for Milk	194.1	165.9	—	165.2
Deductions	—	—	—	10.0
TOTAL POINTS GAINED FOR MILK	194.1	165.9	—	155.2
Points for time since Calving	0.9	—	—	—
TOTAL POINTS GAINED	195.0	165.9	—	155.2
Remarks and Awards	1st Prize. B.D.F.A. Superior Individual Challenge Trophy. Bannam Cup. Spencer Cup. Shurley Cup.	3rd Prize.	Disqualified.	Highly Commended.

CLASS 8.—BRITISH FRIESIAN COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1921)—Continued.

Number Name ...	155 Terling Breeze 8th.	156 Terling Total Eclipse 6th	157 Kingswood Ceres Dassy.	159 Seaton Empress
Born ...	Aug. 11, 1918.	Jan. 14, 1917.	Nov. 21, 1919.	Jan. 8, 1919.
Live weight, in lbs. ...	1,587	1,306	1,325	1,328
Last Calved ...	Jan. 1.	Sept. 6.	May 22.	Sept. 27
Days since Calving ...	109	42	149	21
Weight of Milk, 1st day ...	Morn. Aft. Even.	Morn. Even.	Morn. Aft. Even.	Morn. Aft. Even.
Weight of Milk, 2nd day ...	19.2 19.4 18.1	23.5 23.1	22.0 22.3	23.0 22.8
	20.1 16.9 19.7	33.6 33.3	22.7 24.1	20.6 22.4
Total	39.3 36.3 37.8	67.1 66.4	44.7 47.2	43.6 47.2
Average	19.65 18.15 18.9	33.55 33.2	22.35 23.6	21.8 23.6
Percentage of Fat	4.25 4.12 3.73	2.90 3.10	3.39 3.66	3.08 1.82
Composition of { Solids other than Fat ...	0.19 0.18 0.11	8.74 8.88	8.71 8.82	8.08 8.69
the Milk { Total Solids ...	13.44 13.30 12.84	11.64 11.98	12.10 12.48	12.08 12.46
Actual weight of Fat, in lbs. ...	0.835 0.75 0.71	0.975 1.03	0.76 0.86	0.67 0.85
Calculation of Points multiply by 20 ...	16.7 15.0 14.2	19.50 20.6	15.2 17.2	13.4 8.6
Actual weight of Solids other than Fat, in lbs. ...	1.80 1.67 1.73	2.94 2.95	1.95 2.03	1.94 2.05
Calculation of Points multiply by 4 ...	7.2 6.68 6.92	11.76 11.80	7.80 8.32	7.76 8.20
For weight of Milk (lbs. ...)	56.70	66.75	69.20	68.45
For weight of Fat (lbs. x 20) ...	45.9	40.1	47.4	39.0
For weight of Solids other than Fat (lbs. x 4) ...	20.80	23.56	24.20	24.04
Total Points for Milk	123.4	130.4	140.8	131.5
Deductions ...	—	10.0	—	10.0
TOTAL POINTS GAINED FOR MILK	123.4	120.4	140.8	121.5
Points for time since Calving ...	6.9	0.2	10.9	—
TOTAL POINTS GAINED	130.3	120.6	151.7	121.5
Remarks and Awards ...	Highly Commended.	Highly Commended.	Highly Commended	Highly Commended.

CLASS 8.—BRITISH FRIESIAN COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1921)—Continued.

Number Name ...	...	...	...	...	160 Muntham Troublesome.	162 Winchester Musk.	169 Bulkeley Helen of Troy.	170 Bulkeley Colanthe.
Born ...	...	...	...	...	June 12, 1919. 1,295 Sept. 16, 32	Dec. 20, 1920. 1,375 Aug. 27, 52	Dec. 30, 1918. 1,326 Sept. 12, 36	Feb. 25, 1919. 1,434 Aug. 12, 67
Live weight, in lbs. ...	...	...	...	...	Morn. Aft. Even. 20.2 23.0 24.3	Morn. Aft. Even. 25.5 26.8 28.0	Morn. Aft. Even. 25.4 25.6 26.9	Morn. Aft. Even. 24.0 23.6 23.6
Last Calved ...	...	...	...	...	23.4 24.5 26.0	27.8 24.6 23.7	25.9 26.0 26.9	24.0 24.2 25.4
Days since Calving ...	...	...	...	...	...	...	...	...
Weight of Milk, 1st day ...	...	...	...	...	...	...	...	...
Weight of Milk, 2nd day ...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	43.6 47.5 50.3	53.3 51.4 51.7	51.3 51.6 53.8	48.0 47.8 49.0
Average ...	...	...	...	...	21.8 23.75 25.15	26.65 25.7 25.85	25.65 25.8 26.9	24.0 23.9 24.5
Percentage { Fat ...	...	...	...	...	8.97 5.53 4.01	4.85 3.43 3.40	3.93 3.64 3.31	3.08 3.44 3.01
Composition of { Solids other than Fat ...	...	...	...	...	8.69 8.65 8.61	8.50 8.55 8.46	8.57 8.84 8.47	8.56 8.50 8.39
the Milk. { Total Solids ...	...	...	...	...	14.96 14.18 12.52	13.85 11.98 11.86	12.50 12.48 11.78	11.94 11.94 11.40
Actual weight of Fat, in lbs. ...	...	...	...	...	1.89 1.31 1.01	1.29 0.88 0.88	1.02 0.94 0.89	0.74 0.82 0.74
Calculation of Points multiply by 20 ...	...	...	...	...	27.8 26.2 20.2	25.8 17.6 17.6	20.4 18.8 17.8	14.8 16.4 14.8
Actual weight of Solids other than Fat, in lbs. ...	...	...	...	...	1.87 2.06 2.14	2.27 2.20 2.20	2.20 2.28 2.28	2.05 2.03 2.05
Calculation of Points multiply by 4 ...	...	...	...	...	7.48 8.24 8.56	9.08 8.80 8.80	8.8 9.12 9.12	8.20 8.12 8.20
For weight of Milk (lbs.) ...	...	...	...	...	70.70	78.20	78.85	72.4
For weight of Fat (lbs. × 20) ...	...	...	...	...	74.2	61.0	61.0	37.0
For weight of Solids other than Fat (lbs. × 4) ...	...	...	...	...	24.28	26.68	27.04	24.52
Total Points for Milk ...	...	...	...	...	169.2	165.9	162.4	142.9
Deductions ...	...	...	...	...	—	10.0	10.0	10.0
TOTAL POINTS GAINED FOR MILK ...	...	...	...	...	169.2	155.9	152.4	132.9
Points for time since Calving ...	...	...	...	...	—	1.2	—	2.7
TOTAL POINTS GAINED ...	...	...	...	...	169.2	157.1	152.4	135.6
Remarks and Awards ...	...	...	...	...	2nd Prize.	Highly Commended.	Highly Commended.	Highly Commended.

CLASS 8.—BRITISH FRIESIAN COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1921)—Continued.

Number Name ...	...	...	...	...	...	171 Hawthorne Agnes.	172 Lund (Imp. 1922) Blanche 22nd
Born ...	...	...	...	...	...	Oct. 1, 1917	April 26, 1921.
Live weight, in lbs. ...	...	...	...	...	...	1,376	1,451
Last Calved ...	...	...	...	...	...	Aug. 25	Sept. 2.
Days since Calving ..	...	...	...	...	...	34	46
Weight of Milk, 1st day ..	...	...	...	...	...	Morn. Aft. Even.	Morn. Aft. Even.
Weight of Milk, 2nd day ..	...	...	...	...	...	21.7 23.3 21.9	25.5 23.8 25.6
	...	...	...	...	...	24.4 24.4 23.4	25.5 22.2 22.8
Total	...	...	...	...	...	46.1 47.7 45.3	51.0 46.0 48.4
Average ..	...	...	...	...	...	23.05 23.85 22.65	25.5 23.0 24.2
Percentage { Fat	...	...	...	...	...	3.36 3.52 3.37	3.86 4.07 3.41
Composition of { Solids other than Fat ...	...	...	...	...	...	8.98 9.06 9.01	8.78 8.87 8.99
the Milk. { Total Solids	...	...	...	...	...	12.34 12.58 12.38	12.64 12.94 12.40
Actual weight of Fat, in lbs.	...	...	...	...	...	0.775 0.84 0.76	0.985 0.94 0.825
Calculation of Points multiply by 20	...	...	...	...	...	15.5 16.8 15.2	19.7 18.8 16.5
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	2.07 2.10 2.04	2.24 2.04 2.18
Calculation of Points multiply by 4	...	...	...	...	...	8.28 8.64 8.16	8.96 8.16 8.72
Points—	...	...	...	...	...	69.35	73.7
For weight of Milk (lbs.) ...	...	...	...	...	...	47.5	55.0
For weight of Fat (lbs. × 20)	...	...	...	...	...	25.08	25.84
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	...	142.1	153.5
Total Points for Milk	...	...	...	...	...	—	—
Deductions	...	...	...	...	...	—	—
TOTAL POINTS GAINED FOR MILK	...	...	...	...	...	142.1	153.5
Points for time since Calving	...	...	...	...	...	1.4	0.6
TOTAL POINTS GAINED	...	...	...	...	...	143.5	154.1
Remarks and Awards	...	...	...	...	...	Highly Commended.	Highly Commended.

CLASS 9.—BRITISH FRIESIAN COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK.
BORN AFTER 1ST AUGUST, 1921, AND PREVIOUS TO 1ST AUGUST, 1923).

Number Name	173 Hensted Elenor.	174 Lund Juliet	175 Glyndebourne Celia	176 Hensted Ellen.
Born	Mar. 20, 1922. 1,321	June 30, 1922. 1,408	Mar. 14, 1922. 1,445	Jan. 27, 1922. 1,552
Live weight, in lbs.	June 27. 113	Sept. 27. 21	Sept. 1. 47	Sept. 30. 18
First Calved	...	...	...	...
Days since Calving	...	...	...	...
Weight of Milk, 1st day	Morn. Aft. Even	Morn. Aft. Even	Morn. Aft. Even	Morn. Aft. Even
Weight of Milk, 2nd day	18.3 13.3 12.0 11.9 11.8 9.5	20.0 19.7 19.7 19.5 19.3 20.0	18.7 17.4 19.7 16.7 16.7 18.3	29.5 28.7 28.9 27.1 28.5 28.3
Total	30.2 25.1 21.5	41.5 39.2 39.7	37.3 34.1 38.0	56.6 57.2 57.2
Average	15.1 12.55 10.75	20.75 19.6 19.85	18.65 17.05 19.0	28.3 28.6 28.6
Percentage Composition of the Milk.	3.32 2.86 3.65 8.60 8.36 8.50	3.05 3.24 3.33 8.35 8.64 8.47	3.61 2.91 3.70 8.51 8.67 8.57	8.20 8.19 4.14 8.58 8.55 8.56
Actual weight of Fat, in lbs.	— — —	11.60 11.88 11.80	12.12 11.00 12.86	11.78 11.74 12.70
Calculation of Points multiply by 20	— — —	0.63 0.635 0.60	0.67 0.30 0.72	0.905 0.91 1.18
Actual weight of Solids other than Fat in lbs	— — —	12.6 12.7 13.2	13.4 10.0 14.4	18.1 18.2 13.6
Calculation of Points multiply by 4	— — —	1.77 1.69 1.68	1.58 1.48 1.63	2.43 2.44 2.45
Points—	— — —	7.08 6.76 6.72	6.32 5.92 6.52	9.72 9.76 9.80
For weight of Milk (lbs.)...	— — —	60.20 38.5 20.56	54.70 37.8 20.56	85.5 59.9 29.24
For weight of Fat (lbs. > 20)	— — —	— — —	— — —	— — —
For weight of Solids other than Fat (lbs. > 4)	— — —	— — —	— — —	— — —
Total Points for Milk	— — —	119.3 10.0 10.0	111.3 10.0 10.0	174.7
Deductions	— — —	— — —	— — —	— — —
TOTAL POINTS GAINED FOR MILK	— — —	109.3 10.0 10.0	101.3 10.0 10.0	174.7
Points for time since Calving	— — —	— — —	0.7	— — —
TOTAL POINTS GAINED	— — —	109.3 10.0 10.0	102.0	174.7
Remarks and Awards	Disqualified.	Highly Commended.	Highly Commended.	1st Prize; Reserve Barham Cup; Reserve Shirley Cup.

CLASS 9.—BRITISH FRIESIAN COWS (BORN AFTER 1ST AUGUST, 1921, AND PREVIOUS TO 1ST AUGUST, 1923)—Continued.

Number Name	177 Hamels Elegance.	179 Macknade Honey.	180 Mapleton Grace.	182 Thorpe Mooi Bloem.
Born	July 5, 1922. 1,237	Feb. 17, 1922. 1,312	Sept 16, 1922 1,372	Aug. 10, 1921. 1,223
Live weight in lbs.	Aug. 11 68	Aug. 20 59	Sept. 25 23	Sept. 22 26
Last Calved				
Days since Calving				
Weight of Milk, 1st day	Morn. Aft. Even. 26.5 25.4 25.4	Morn. Aft. Even. 24.3 26.5 25.6	Morn. Aft. Even. 24.8 25.5 24.8	Morn. Aft. Even. 17.4 20.0 20.0
Weight of Milk, 2nd day	28.8 24.5 26.7	23.9 23.9 24.2	24.6 25.5 25.6	19.0 20.2 19.6
Total	55.3 49.9 52.1	48.2 50.4 49.8	49.4 51.0 50.4	36.4 41.0 39.6
Average	27.65 24.95 26.05	24.1 25.2 24.9	24.7 25.5 25.2	18.2 20.5 19.8
Percentage { Fat	3.24 3.59 3.52	3.43 3.63 3.41	3.87 3.94 4.17	3.62 3.70 4.55
Composition of { Solids other than Fat	8.80 9.03 8.64	8.63 8.59 8.67	8.79 9.12 8.89	8.96 8.82 8.69
the Milk. { Total Solids	12.04 12.62 12.16	12.06 12.22 12.08	12.66 13.06 13.06	12.58 12.52 13.24
Actual weight of Fat, in lbs.	0.895 0.895 0.915	0.83 0.82 0.85	0.935 1.0 1.05	0.66 0.76 0.90
Calculation of Points multiply by 20	17.9 17.9 18.30	16.6 18.4 17.0	19.1 20.0 21.0	13.2 15.2 18.0
Actual weight of Solids other than Fat, in lbs.	2.43 2.25 2.25	2.08 2.16 2.16	2.17 2.33 2.24	1.63 1.81 1.72
Calculation of Points multiply by 4	9.72 9.0 9.00	8.32 8.64 8.64	8.68 9.32 8.96	6.52 7.24 6.88
Points—				
For Weight of Milk (lbs.)...	78.65	74.2	75.4	58.5
For weight of Fat (lbs. x 20)	54.1	52.0	60.1	46.4
For weight of Solids other than Fat (lbs. x 4)	27.72	25.60	26.96	20.64
Total Points for Milk	160.5	151.8	162.5	125.5
Deductions	—	—	—	—
TOTAL POINTS GAINED FOR MILK	160.5	151.8	162.5	125.5
Points for time since Calving	2.8	1.9	—	—
TOTAL POINTS GAINED	163.3	153.7	162.5	125.5
Remarks and Awards	3rd Prize.	Highly Commended.	Reserve.	Highly Commended.

CLASS 9.—BRITISH FRIESIAN COWS (BORN AFTER 1ST AUGUST, 1921, AND PREVIOUS TO 1ST AUGUST, 1923)—Continued.

Number	...	...	...	...	...	183	185
Name	...	...	...	...	...	Reddown Crocus 3rd.	Ken Lady Grovehill.
Born	...	...	...	...	...	Aug. 14, 1921. 1,442	Jan. 27, 1922. 1,368
Live weight, in lbs.	...	...	...	...	...	Sept. 13. 35	Sept. 21 27
Last Calved	...	...	...	...	...	...	...
Days since Calving	...	...	...	...	...	...	...
Weight of Milk, 1st day	...	...	...	...	...	Morn. 28.3 Aft. 27.5 Even. 28.2	Morn. 35.8 Even. 40.8
Weight of Milk, 2nd day	...	...	...	...	...	29.4	37.0
Total	...	...	...	...	...	57.7	73.4
Average	...	...	...	...	...	28.85	36.7
Percentage Composition of the Milk.	...	...	...	...	...	2.41 8.33	3.76 8.88
Actual weight of Fat, in lbs.	...	...	...	...	...	...	12.64
Calculation of Points multiply by 20	...	...	...	...	...	...	1.38
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	...	27.6
Calculation of Points multiply by 4	...	...	...	...	...	...	3.25
For Weight of Milk (lbs.)...	...	...	...	...	...	...	13.0
For weight of Fat (lbs. × 20)	...	...	...	...	...	...	77.3
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	...	...	62.2
Total Points for Milk	...	...	...	...	...	...	27.6
Deductions	...	...	...	...	...	...	167.1
TOTAL POINTS GAINED FOR MILK	...	...	...	...	...	...	167.1
Points for time since Calving	...	...	...	...	...	...	...
TOTAL POINTS GAINED	...	...	...	...	...	...	167.1
Remarks and Awards	...	...	...	...	...	Disqualified.	2nd Prize.

CLASS 10—BRITISH FRIESIAN HEIFERS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK.
BORN ON OR AFTER 1ST AUGUST, 1923).

Number	...	...	...	...	...	187 Beverley Warrior's Jem.	189 Glyndebourne Ida.	190 Golf Sushunc 3rd.	191 Hamel's Foliage.
Name	...	...	...	...	...	...	...	...	...
Born	...	...	...	...	...	April 16, 1924. 1,365	Sept. 14, 1923. 1,396	May 25, 1924. 1,284	Aug. 20, 1923. 1,285
Live weight, in lbs.	...	...	...	...	...	Sept. 17. 31	Aug. 24. 55	Aug. 26. 53	Aug. 13. 66
Last Calved	...	...	...	...	...	...	...	...	...
Days since Calving	...	...	...	...	...	...	...	...	...
Weight of Milk, 1st day	...	...	...	...	...	Morn. Even. 10.2 16.3	Morn. Aft. Even. 12.7 13.5 12.1	Morn. Aft. Even. 16.3 17.0 16.7	Morn. Aft. Even. 22.8 22.2 24.1
Weight of Milk, 2nd day	...	...	...	...	...	17.6 17.5	11.7 11.9 12.4	17.2 17.2 16.7	23.7 23.8 23.9
Total	...	...	...	...	...	34.1 34.4	24.4 25.4 24.5	33.5 34.2 33.4	46.5 46.0 48.0
Average	...	...	...	...	...	17.05 17.2	12.2 12.7 12.95	16.75 17.1 16.7	23.25 23.00 24.0
Percentage	...	...	...	...	...	8.88 4.06	3.55 4.07 3.74	3.05 3.51 3.83	3.41 8.45 3.52
Composition of	...	...	...	...	...	9.20 9.70	8.77 8.55 9.04	8.85 9.01 9.05	8.53 8.93 8.39
the Milk.	...	...	...	...	...	13.08 13.76	12.82 12.92 12.78	11.90 12.52 12.88	11.94 11.78 11.94
Total Solids	...	...	...	...	...	0.66 0.70	0.43 0.52 0.46	0.51 0.60 0.64	0.79 0.79 0.85
Actual weight of Fat, in lbs.	...	...	...	...	...	...	...	...	...
Calculation of Points multiply by 20	...	...	...	...	...	13.2 14.0	8.6 10.4 9.2	10.2 12.0 12.8	15.8 13.8 17.0
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	1.57 1.67	1.07* 1.12 1.11	1.49 1.54 1.51	1.98 1.92 2.01
Calculation of Points multiply by 4	...	...	...	...	...	6.28 6.68	4.28 4.48 4.44	5.96 6.16 6.04	7.92 7.68 8.04
Points—	...	...	...	...	...	...	...	...	...
For weight of Milk (lbs.)	...	...	...	...	...	34.25	37.15	50.55	70.25
For weight of Fat (lbs. x 20)	...	...	...	...	...	27.2	28.2	35.0	48.6
For weight of Solids other than Fat (lbs. x 4)	...	...	...	...	...	12.96	13.20	18.16	23.61
Total Points for Milk	...	...	...	...	...	74.4	78.6	103.7	142.5
Deductions	...	...	...	...	...	—	—	—	20.0
TOTAL POINTS GAINED FOR MILK	...	...	...	...	...	74.4	78.6	103.7	122.5
Points for time since Calving	...	...	...	...	...	—	1.5	1.3	2.6
TOTAL POINTS GAINED	...	...	...	...	...	74.4	80.1	105.0	125.1
Remarks and Awards	...	...	...	...	...	Highly Commended.	Highly Commended.	Highly Commended.	2nd Prize.

CLASS 10.—BRITISH FRIESIAN HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1923)—Continued.

Number Name	192 Hamel's Grace.	193 Hamel's Flashlight.	196 Winchester Miriam.	197 Attmore Angela
Born	Feb. 20, 1924. 1,359 Sept 2. 46	Aug. 14, 1923. 1,426 April 3 198	Sept. 25, 1923 1,304 Sept. 27. 21	Sept. 4, 1923. 1,315 Sept. 25. 23
Live weight, in lbs.				
Last Calved				
Days since Calving				
Weight of Milk, 1st day	Morn. 16.2 Aft. 18.0 Even. 18.7	Morn. 17.7 Aft. 18.8 Even. 18.4	Morn. 13.9 Aft. 14.4 Even. 13.7	Morn. 6.3 Aft. 10.7 Even. 7.6
Weight of Milk, 2nd day	17.7 35.8 36.0	19.5 37.2 37.2	13.1 27.0 28.1	8.1 14.7 18.0
Total	33.9	37.2	27.0	14.7
Average	10.95	18.6	13.5	7.85
Percentage of Fat	4.03	4.00	3.50	4.04
Composition of Milk	9.17	8.65	8.92	9.50
Solids other than Fat	13.20	12.64	12.42	13.54
Total Solids	0.68	0.74	0.47	0.30
Actual weight of Fat, in lbs.	13.6	14.8	11.2	6.0
Calculation of Points multiply by 20	1.55	1.61	1.2	0.70
Actual weight of Solids other than Fat, in lbs.	6.2	6.44	4.8	2.8
Calculation of Points multiply by 4	52.85	37.2	41.90	25.00
For weight of Milk (lbs.)	43.2	28.8	32.6	21.8
For weight of Fat (lbs. x 20)	19.48	12.88	14.68	9.2
For weight of Solids other than Fat (lbs. x 4)	115.5	78.9	89.2	56.0
Total Points for Milk	115.5	78.9	89.2	56.0
Deductions				
TOTAL POINTS GAINED FOR MILK	115.5	78.9	89.2	56.0
Points for time since Calving	0.6	12.0		
TOTAL POINTS GAINED	116.1	90.9	89.2	56.0
Remarks and Awards	3rd Prize.	Highly Commended.	Highly Commended.	

CLASS 10.—BRITISH FRIESIAN HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1923)—Continued.

Number Name ...	198 Eynsford Trix.	199 Macknade Vendaw.	200 Iken Ceres Dairymaid.	200 Knebworth Ceres Galaten.
Born ...	Jan. 13, 1924. 1,290	Sept. 13, 1923. 1,443	Nov. 20, 1923. 1,494	Jan. 13, 1924. 1,199
Live weight, in lbs. ...	Aug. 28. 51	Sept. 28. 20	July 1. 109	Sept. 8. 40
Last Calved ...				
Days since Calving ..				
Weight of Milk, 1st day ..	Morn. Even 27.7 25.8	Morn. Aft. Even 11.9 13.2 15.5	Morn. Even 17.7 18.3	Morn. Aft. Even. 21.0 21.4 20.0
Weight of Milk, 2nd day ..	28.1 27.0	13.9 14.0 13.6	17.7 18.9	21.0 19.2 20.0
Total	55.1 53.5	25.8 27.2 29.1	35.7 37.2	42.9 40.7 40.9
Average	27.55 26.75	12.9 13.6 14.53	18.35 18.6	21.45 20.35 20.45
Percentage { Fat Composition of Solids other than Fat ...	8.15 3.20	3.37 2.42 3.75	3.24 2.96	3.81 3.01 3.36
the Milk. { Total Solids ..	8.85 9.08	9.09 8.00 8.53	8.08 8.48	9.21 9.19 8.98
Actual weight of Fat, in lbs. ..	12.00 12.28	12.46 11.32 12.28	— — —	13.02 12.20 12.34
Calculation of Points multiply by 20	0.87 0.855	0.435 0.33 0.545	— — —	0.82 0.61 0.69
Actual weight of Solids other than Fat, in lbs. ...	17.4 17.1	8.7 6.6 10.9	— — —	16.4 12.2 13.80
Calculation of Points multiply by 4	2.43 2.42	1.17 1.21 1.24	— — —	1.97 1.87 1.84
Points—	9.72 9.68	4.68 4.84 4.96	— — —	7.88 7.48 7.36
For weight of Milk (lbs.) ..	54.3	41.05	—	62.25
For weight of Fat (lbs. × 20) ..	31.5	26.2	—	42.4
For weight of Solids other than Fat (lbs. × 4)	19.4	14.48	—	22.72
Total Points for Milk	108.2	81.7	—	127.4
Deductions	—	10.0	—	—
TOTAL POINTS GAINED FOR MILK	108.2	71.7	—	127.4
Points for time since Calving	1.1	—	—	—
TOTAL POINTS GAINED	109.3	71.7	—	127.4
Remarks and Awards	Reserve.		Disqualified.	1st Prize.

CLASS 11.—SOUTH DEVON COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK OF THE SOUTH DEVON HERD BOOK SOCIETY).

Number Name ..	208 Milkmaid 9th.
Born ..	Sept. 2, 1910.
Lave weight, in lbs. ...	1,566
First Calved ..	July 22.
Days since Calving ..	88
Weight of milk, 1st day	Morn Aft. Even.
Weight of Milk, 2nd day	25.1 23.4 19.0
	25.1 21.3 27.1
Total	50.2 44.7 46.1
Average	25.1 22.35 23.05
Percentage { Fat	4.93 4.95 3.72
Composition of { Solids other than Fat	9.35 9.37 9.36
the Milk, { Total Solids	14.28 14.32 13.08
Actual weight of Fat, in lbs.	1.24 1.11 0.86
Calculation of Points multiply by 20	24.8 22.2 17.20
Actual weight of Solids other than Fat, in lbs.	2.34 2.10 2.16
Calculation of Points multiply by 4	9.36 8.40 8.64
Points—	
For weight of Milk (lbs.) ...	70.50
For weight of Fat (lbs. $\times 20$)	64.2
For weight of Solids other than Fat (lbs. $\times 4$)	26.40
Total Points for Milk	161.1
Deductions	—
TOTAL POINTS GAINED FOR MILK	161.1
Points for time since Calving	4.8
TOTAL, POINTS GAINED	165.9
Remarks and Awards	1st Prize, South Devon Cup and Reserve Spencer Cup.

CLASS 14.—DEVON COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK OR ENTERED IN THE SUPPLEMENTAL REGISTER OF SUCH HERD BOOK).

Number Name ..	225 Lovely 4th.
Born ..	May 5, 1918.
Lave weight, in lbs. ...	1,253
First Calved ..	Sept. 7.
Days since Calving ..	41
Weight of milk, 1st day	Morn. Even.
Weight of Milk, 2nd day	23.5 24.8
	25.3 25.3
Total	48.8 50.1
Average	24.4 25.05
Percentage { Fat	4.15 5.12
Composition of { Solids other than Fat	8.99 9.06
the Milk, { Total Solids	13.14 14.18
Actual weight of Fat, in lbs.	1.01 1.28
Calculation of Points multiply by 20	20.2 25.6
Actual weight of Solids other than Fat, in lbs.	2.2 2.27
Calculation of Points multiply by 4	8.8 9.08
Points—	
For weight of Milk (lbs.) ...	49.45
For weight of Fat (lbs. $\times 20$)	45.8
For weight of Solids other than Fat (lbs. $\times 4$)	17.88
Total Points for Milk	113.1
Deductions	—
TOTAL POINTS GAINED FOR MILK	113.1
Points for time since Calving	0.1
TOTAL, POINTS GAINED	113.2
Remarks and Awards	1st Prize, Bursk Cup.

CLASS 15.—RED POLL COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR PREVIOUS TO 1ST AUGUST, 1921).

Number Name ..	227 Hardwick Hester.	228 Bray Queen.	233 Saham Leezie.	234 Seven Springs Bessy.	235 Tending Floss 34th.
Born ..	April 7, 1917.	Mar. 6, 1921.	Feb. 4, 1921.	Jan. 16, 1920.	April 5, 1919.
Live weight, in lbs. ...	1,249	1,335	1,266	1,194	1,160
Last Calved ...	Sept. 9.	Sept. 17.	Sept. 25.	June 16.	Aug. 31.
Days since Calving ...	39	31	23	124	48
Weight of Milk, 1st day	Morn. Aft. Even.	Morn. Even.	Morn. Even.	Morn. Even.	Morn. Even.
Weight of Milk, 2nd day	20-1 10-7 20-0	20-8 27-7	24-5 25-0	19-4 19-2	32-2 37-5
	21-5 20-0 19-9	27-8 29-5	24-5 24-9	20-0 18-0	35-5 31-5
Total	41-6 40-6 39-9	57-6 57-2	49-0 49-9	39-4 37-2	67-7 60-0
Average	20-8 20-3 19-95	23-8 28-6	24-5 24-95	19-7 18-6	33-85 31-5
Percentage { Fat	4-03 3-86 3-64	4-17 4-35	3-89 3-84	5-42 4-68	3-49 4-53
Composition of { Solids other than Fat	9-23 9-16 9-04	8-99 9-53	9-47 9-24	8-98 9-22	8-55 8-97
the Milk { Total Solids	13-26 13-02 12-68	13-16 13-88	13-36 13-08	14-40 13-90	12-34 13-52
Actual weight of Fat, in lbs. ...	0-84 0-785 0-73	1-20 1-24	0-95 0-96	1-07 0-87	1-18 1-57
Calculation of Points multiply by 20	16-8 15-70 14-60	24-0 24-8	19-0 19-2	21-4 17-4	23-6 31-4
Actual weight of Solids other than Fat, in lbs. ...	1-93 1-86 1-81	2-6 2-73	2-32 2-31	1-76 1-73	3-0 3-10
Calculation of Points multiply by 4	7-72 7-44 7-24	10-4 10-92	9-28 9-24	7-04 6-88	12-0 12-4
Points—					
For weight of Milk (lbs.) ...	61-05	57-4	49-45	38-3	68-35
For weight of Fat (lbs. x 20) ...	47-1	48-8	38-2	38-8	55-0
For weight of Solids other than Fat (lbs. x 4) ...	22-40	21-32	13-52	13-92	24-4
Total Points for Milk	130-6	127-5	106-2	91-0	147-8
Deductions	—	—	—	—	—
TOTAL POINTS GAINED FOR MILK	130-6	127-5	106-2	91-0	147-8
Points for time since Calving	—	—	—	8-4	0-8
TOTAL POINTS GAINED	130-6	127-5	106-2	99-4	148-6
Remarks and Awards	2nd Prize; Equal, Red Poll Cattle Society's Prize.	3rd Prize.	Highly Commended.		1st Prize.

CLASS 15.—RED POLL COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1921)—*Continued.*

Number Name	...	...	...	236 Hutton Apricot	237 Astmore Viola
Born ..	..	..	..	Sept. 11, 1919 1,301	Mar. 15, 1919, 1,210
Live weight, in lbs.	..	..	..	Sept. 5, 43	Aug. 4, 75
Last Calved ..	..	..	..	Morn	Morn
Days since Calving ..	..	..	..	Even	Even
Weight of Milk, 1st day	..	..	..	27 1	22 5
Weight of Milk, 2nd day	..	..	..	23 2	22 5
Total	..	..	..	50 3	45 7
Average	..	..	..	25 15	22 85
Percentage { Fat	..	..	..	4 84	4 39
Composition of { Solids other than Fat	..	..	..	9 34	8 50
the Milk. { Total Solids	..	..	..	13 68	12 98
Actual weight of Fat, in lbs.	..	..	..	1 09	1 0
Calculation of Points multiply by 20	..	..	..	21 8	20 0
Actual weight of Solids other than Fat, in lbs.	..	..	..	2 35	1 96
Calculation of Points multiply by 4	..	..	..	9 4	7 84
Points—	..	..	..	49 5	44 45
For weight of Milk (lbs.)	..	..	..	48 0	37 9
For weight of Fat (lbs. $\times 20$)	..	..	..	18 28	15 44
For weight of Solids other than Fat (lbs. $\times 4$)	..	..	..	115 8	97 8
Total Points for Milk	..	..	..	—	—
Deductions	..	..	..	115 8	97 8
TOTAL POINTS GAINED FOR MILK	..	..	..	0 3	3 5
Points for time since Calving	..	..	..	116 1	101 3
TOTAL POINTS GAINED	..	..	..	Reserve	Highly Commended.
Remarks and Awards	..	..	..	..	..

CLASS 16.—RED POLL COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK.
BORN AFTER 1ST AUGUST, 1921, AND PREVIOUS TO 1ST AUGUST, 1923).

Number Name ...	238 Baskdon Roscard 2nd	239 Knepp Prudence 4th	240 Southdown Beline.	241 Hutton Belle 2nd
Born ...	Oct. 2, 1922	Sept. 6, 1921.	Sept. 25, 1921.	Sept. 9, 1922.
Live weight, in lbs.	1,110	1,206	1,228	1,055
Last Calved	Sept. 28.	May 26.	Aug. 19	Sept. 8.
Days since Calving ..	20	145	60	40
Weight of Milk, 1st day	Morn. Even	Morn. Aft. Even	Morn. Aft. Even.	Morn. Aft. Even
Weight of Milk, 2nd day	23.0 22.7	13 1 12 6 13.0	19 1 20 0 19 3	15.2 17.1 14 6
	22.7 22.5	13 1 13.7 12 4	20 2 20 0 18 8	16.5 16 5 15 4
Total	45.7 45 2	26 2 26.3 25 4	39 3 40.0 38 1	31.7 33 0 30 0
Average	22 85 22 6	13.1 13.15 12.7	19.65 20 0 19.05	15.85 16 8 15 0
Percentage (Fat	4.53 2 83	4 61 4 56 4 46	3 45 3 46 3.40	3.26 3 11 3.13
Composition of Solids other than Fat	9 15 9 03	9 05 8 90 8 70	9 51 9 14 9 10	9.04 9.05 9 63
the Milk. (Total Solids ..	13 68 11 86	13 66 13 46 13 16	12 96 12 60 12 50	13 20 12.70 12.76
Actual weight of Fat, in lbs.	1 04 0.645	0 60 0 60 0.57	0 68 0.69 0 65	0.52 0 52 0 47
Calculation of Points multiply by 20	20.8 12.9	12.0 12.0 11.40	13 6 13.8 13 00	10 4 10 4 9 40
Actual weight of Solids other than Fat, in lbs., ..	2 10 2 04	1 10 1.17 1.11	1.86 1 83 1.73	1.58 1 62 1 44
Calculation of Points multiply by 4	8.4 8.16	4 76 4.68 4.44	7.44 7.32 6.92	6 32 6 48 5 76
Points—				
For Weight of Milk (lbs.)...	45 45	38 95	58 70	47.65
For weight of Fat (lbs. × 20)	33 7	35 4	40 4	30.2
For weight of Solids other than Fat (lbs. × 4)	16.56	13 88	21 68	18 56
Total Points for Milk	95.7	88 2	120 8	96 4
Deductions	10.0	—	—	—
TOTAL POINTS GAINED FOR MILK	85 7	88 2	120 8	96.4
Points for time since Calving	—	10.5	2.0	—
TOTAL POINTS GAINED	85 7	98 7	122 8	96 4
Remarks and Awards	Highly Commended.	3rd Prize ; Equal, Red Poll Cattle Society's Prize.	1st Prize	Reserve.

CLASS 16.—RED POLL COWS (BORN AFTER 1ST AUGUST, 1921, AND PREVIOUS TO 1ST AUGUST, 1923).

Number Name ...	...	...	...	...	...	243 Basdon Hawthorn.	241 Salham Ruby Vintage.
Born ...	...	...	...	...	...	Sept. 11, 1922. 1,160 Aug. 11. 68	Oct. 8, 1921. 1,300 Aug. 23. 56
Live weight, in lbs. ...	...	...	...	...	...
Last Calved ...	...	...	...	...	...
Days since Calving ...	...	...	...	...	...
Weight of Milk, 1st day ...	...	...	...	...	...	Morn. Even. 23.3 21.0 19.7 19.7	Morn. Even. 15.4 20.7 18.5 18.2
Weight of Milk, 2nd day ...	...	...	...	...	...
Total	...	...	...	...	...	43.0 41.6	33.9 38.9
Average	...	...	...	...	...	21.5 20.8	16.95 19.45
Percentage { Fat ...	...	...	...	...	...	5.04 5.22	3.67 4.25
Composition of { Solids other than Fat ...	...	...	...	...	...	9.48 9.76	8.95 8.77
the Milk, { Total Solids ...	...	...	...	...	...	14.52 14.98	12.62 13.02
Actual weight of Fat, in lbs. ...	...	...	...	...	...	1.08 1.09	0.62 0.83
Calculation of Points multiply by 20	...	...	...	...	...	21.6 21.8	12.4 16.6
Actual weight of Solids other than Fat, in lbs. ...	...	...	...	...	...	2.03 2.04	1.52 1.71
Calculation of Points multiply by 4	...	...	...	...	...	8.12 8.16	6.08 6.84
Points—	...	...	...	...	...
For Weight of Milk (lbs.) ...	...	...	...	...	...	42.3	36.4
For weight of Fat (lbs. × 20)	...	...	...	...	...	43.4	29.0
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	...	16.28	12.92
Total Points for Milk	...	...	...	...	...	102.0	78.3
Deductions	...	...	...	...	...	—	—
TOTAL POINTS GAINED FOR MILK	...	...	...	...	...	102.0	78.3
Points for time since Calving	...	...	...	...	...	2.8	1.6
TOTAL POINTS GAINED	...	...	...	...	...	104.8	79.9
Remarks and Awards	...	...	...	...	...	2nd Prize, Equal Red Poll Cattle Society's Prize.	

CLASS 17.—RED POLL HEIFERS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1923).

Number Name ...	245 Longford Desperation.	247 Longford Courage.	248 Basildon Moelen.	251 Basildon Russett.
Born ...	Mar. 2, 1924. 1,151	Oct. 2, 1923. 988	Sept. 28, 1923. 1,136	Sept. 9, 1923. 918
Live weight, in lbs. ...	1,151	Sept. 22. 26	Aug. 30. 49	June 6. 134
Last Calved ...	Sept. 5. 43			
Days since Calving ...				
Weight of Milk, 1st day ...	Morn. Aft. Even. 14.4 14.3 14.6	Morn. Aft. Even. 17.5 17.8 17.4	Morn. Aft. Even. 13.9 10.8 9.8	Morn. Aft. Even. 14.0 13.7 12.9
Weight of Milk, 2nd day ...	14.0 14.2 13.8	16.6 17.2 16.4	10.4 11.2 11.7	12.1 13.8 12.8
Total	28.4 28.5 27.4	34.1 35.0 33.8	24.3 22.0 21.5	26.1 27.5 25.7
Average	14.2 14.25 13.7	17.05 17.5 16.9	12.15 11.0 10.75	13.05 13.75 12.85
Percentage Composition of the Milk.	3.82 4.15 4.0 9.10 9.07 8.88 12.92 13.22 12.88	3.08 3.31 3.61 9.08 8.05 8.81 12.16 12.26 12.42	3.50 3.80 3.35 9.84 9.62 9.49 13.84 13.42 12.84	4.54 5.20 4.67 9.42 9.20 9.25 13.96 14.10 13.92
Actual weight of Fat, in lbs.	0.545 0.59 0.55	0.525 0.58 0.61	0.425 0.42 0.36	0.535 0.715 0.60
Calculation of Points multiply by 20	10.9 11.8 11.0	10.5 11.6 12.20	8.5 8.4 7.20	11.9 14.3 12.0
Actual weight of Solids other than Fat, in lbs.	1.29 1.29 1.22	1.55 1.57 1.49	1.2 1.06 1.02	1.23 1.27 1.19
Calculation of Points multiply by 4	5.16 5.16 4.88	6.20 6.28 5.96	4.8 4.24 4.08	4.92 5.08 4.76
Points—				
For weight of Milk (lbs.) ...	42.15	51.45	33.90	30.65
For weight of Fat (lbs. × 20)	33.7	34.3	34.3	38.2
For weight of Solids other than Fat (lbs. × 4)	19.20	18.44	13.12	14.76
Total Points for Milk	91.1	104.2	71.1	92.0
Deductions	—	—	—	—
TOTAL POINTS GAINED FOR MILK	91.1	104.2	71.1	92.0
Points for time since Calving	0.3	—	0.9	9.4
TOTAL POINTS GAINED	91.4	104.2	72.0	102.0
Remarks and Awards	Highly Commended.	1st Prize.	Highly Commended.	3rd Prize.

CLASS 18.—BLUE ALBION COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK).

Number Name ...	261 Branshall Margaret	264 Elsenham Jessie	266 Brampton Jewel	267 Megdale Emma	268 Mount Sweetheart
Born ...	Not known, 1,442 June 21, 119	1919, 1,422 Sept. 1, 47	Not known, 1,189 Oct. 1, 17	Not known, 1,332 Sept. 8, 40	1918, 1,568 Sept. 11, 37
Iive weight, in lbs. ...	Morn. Even. 29 1 40 6	Morn. Even. 37 8 40 6	Morn. Even. 27 1 25 1	Morn. Even. 24 6 24 9	Morn. Even. 29 9 31 7
Last Calved ...	28 2 27 0	37 2 36 6	27 5 27 2	26 6 26 0	26 8 29 6
Days since Calving ...	54 0 56 7	75 0 77 2	54 6 52 3	51 2 50 9	56 7 61 3
Weight of Milk, 1st day	27 0 28 35	37 5 38 6	27 3 26 15	25 6 25 45	28 35 30 65
Weight of Milk, 2nd day	2 75 3 30	3 17 3 78	4 55 4 31	4 53 4 70	3 41 3 61
Total	8 70 8 97	8 67 9 04	8 95 8 43	8 85 9 10	8 09 8 61
Average	11 54 12 36	11 84 12 82	13 30 12 74	13 38 13 80	11 50 12 22
Percentage (Fat	0 74 0 96	1 19 1 46	1 24 1 13	1 16 1 20	0 97 1 11
Composition of { Solids other than Fat	14 8 19 2	23 8 20 2	24 8 22 6	23 2 24 0	19 4 22 2
the Milk, { Total Solids	2 36 2 54	3 25 3 49	2 45 2 20	2 27 2 32	2 8 2 66
Actual weight of Fat, in lbs.	9 44 10 16	13 00 13 96	9 80 8 80	9 08 9 28	9 20 10 64
Calculation of Points multiply by 20	55 83	76 1	53 45	51 05	59 0
Actual weight of Solids other than Fat, in lbs.	34 0	53 0	47 4	47 2	41 6
Calculation of Points multiply by 4	19 6	26 96	18 6	18 36	19 84
For weight of Milk (lbs.) ...	109 0	156 1	119 5	116 6	120 4
For weight of Fat (lbs. × 20)	10 0	—	10 0	—	10 0
For weight of Solids other than Fat (lbs. × 4)	99 0	156 1	109 5	116 6	110 4
Total Points for Milk	7 9	0 7	—	—	0 4
Deductions ...	106 9	156 8	109 5	116 6	110 8
TOTAL POINTS GAINED FOR MILK		1st Prize	Reserve.	2nd Prize.	3rd Prize
Points for time since Calving					
TOTAL POINTS GAINED					
Remarks and Awards					

CLASS 19.—BLUE ALBION HEIFERS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1923).

Number Name	...	...	...	...	...	269 Ridgeyardhue May.	270 Mount Daurymaid 2nd.	271 Mount Polly 2nd.
Born	...	...	...	...	...	May 14, 1924.	Aug. 11, 1923.	Oct. 19, 1923.
Live weight, in lbs.	...	...	...	...	...	1,314	1,172	1,213
Last Calved	...	...	...	...	...	Sept. 23.	Sept. 23	Oct. 3
Days since Calving	...	...	...	...	...	25	25	15
Weight of Milk, 1st day	...	...	...	...	...	Morn. 16.3	Morn. 14.8	Morn. 15.1
Weight of Milk, 2nd day	...	...	...	...	...	Even 14.7	Even. 16.5	Even. 13.3
	...	...	...	...	...	15.9	16.3	13.8
Total	...	...	...	...	...	31.0	31.2	28.9
Average	...	...	...	...	...	15.5	15.6	14.45
Percentage { Fat	...	...	...	...	...	8.88	4.08	4.11
Composition of { Solids other than Fat	...	...	...	...	...	8.78	9.32	9.41
the MILK. { Total Solids	...	...	...	...	...	12.16	13.70	13.52
Actual weight of Fat, in lbs.	...	...	...	...	...	0.523	0.73	0.59
Calculation of Points multiply by 20	...	...	...	...	...	10.50	14.8	11.8
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	1.86	1.46	1.36
Calculation of Points multiply by 4	...	...	...	...	...	5.44	5.84	5.44
Points—	...	...	...	...	...
For weight of Milk (lbs.) ...	...	...	...	...	...	31.75	32.0	28.0
For weight of Fat (lbs. x 20)	...	...	...	...	...	23.9	23.4	23.0
For weight of Solids other than Fat (lbs. x 4)	...	...	...	...	...	11.04	11.88	10.52
Total Points for Milk	...	...	...	...	...	66.7	73.3	63.5
Deductions	...	...	...	...	...	—	—	—
TOTAL POINTS GAINED FOR MILK	...	...	...	...	...	66.7	73.3	63.5
Points for time since Calving	...	...	...	...	...	—	—	—
TOTAL POINTS GAINED	...	...	...	...	...	66.7	73.3	63.5
Remarks and Awards	...	...	...	...	...	2nd Prize.	1st Prize.	

CLASS 20.—WELSH BLACK COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK).

Number Name ..	274 Gwern Clementine.	275 Brynion Handy 6th.
Born ...	Feb. 28, 1922.	Dec. 4, 1921.
Live weight, in lbs.	1,167	1,124
Last Calved ..	Aug. 17.	Sept. 5.
Days since Calving ..	62	43
Weight of Milk, 1st day	Morn. Aft. Even.	Morn. Even.
Weight of Milk, 2nd day	13.1 12.0 12.0	20.5 23.7
	13.1 13.1 13.3	24.7 19.8
Total	25.6 25.1 25.3	45.2 43.5
Average ..	12.8 12.55 12.65	22.6 21.75
Percentage { Fat	4.55 4.40 4.22	3.46 3.92
Composition of { Solids other than Fat	9.45 9.40 9.34	9.46 9.42
the Milk. { Total Solids ..	14.00 13.80 13.56	12.92 13.34
Actual weight of Fat, in lbs.	0.58 0.55 0.535	0.78 0.85
Calculation of Points multiply by 20	11.6 11.0 10.70	15.6 17.0
Actual weight of Solids other than Fat, in lbs. ...	1.21 1.18 1.18	2.13 2.05
Calculation of Points multiply by 4	4.84 4.72 4.72	8.52 8.20
Points ..	38.00	44.25
For weight of Milk (lbs.) ...	33.3	32.9
For weight of Fat (lbs. × 20)	14.28	16.72
For weight of Solids other than Fat (lbs. × 4)		
Total Points for Milk ..	85.6	93.7
Deductions ..	—	—
TOTAL POINTS GAINED FOR MILK	85.6	93.7
Points for time since Calving ..	2.2	0.3
TOTAL POINTS GAINED ..	87.8	94.0
Remarks and Awards		1st Prize.

CLASS 21.—AYRSHIRE COWS (ENTERED WITH A NUMBER IN THE HERD BOOK OR IN THE APPENDICES).

Number Name ...	276 Cathlins Belinda. April 28, 1921. 1,166 Sept. 26, 22	278 Corschill Clementine 2nd. Aug. 20, 1922. 1,056 Sept. 9, 30	279 Millmont Mayflower April 3, 1911. 1,238 Aug. 28, 31	280 Shieldhill Topay Feb. 19, 1916. 1,160 Aug. 20, 30
Born ...	Morn. Aft. Even. 24-8 25-4 23-2	Morn. Aft. Even. 17-1 16-7 16-0	Morn. Aft. Even. 30-7 28-7 29-6	Morn. Aft. Even. 21-5 21-8 21-1
Lave weight, in lbs. ...	23-5 24-6 24-1	16-2 16-2 16-8	29-3 29-8 25-7	23-2 21-3 20-9
Days since Calving ...	48-3 50 0 47 3	33-3 32 9 32-8	60-0 55-5 55-3	44-7 43 1 42 0
Weight of Milk, 1st day	24-15 25 0 23-65	16-65 16 45 16 4	30 0 27 75 27-65	22 35 21-55 21 0
Weight of Milk, 2nd day	3-76 4 80 4 10	3-28 3 51 5 91	3-19 3 40 3-59	4 22 4 44 3 86
Total	9-14 9 30 9 18	9-38 9 47 9 70	8-77 8 84 8 53	9-00 8 80 8 62
Percentage { Fat ...	12-00 14-10 13-28	12 00 12-98 15 70	11 06 12-24 12-12	13 22 13-24 12 48
Composition of the Milk. { Solids other than Fat ...	0-91 1-20 0-97	0-545 0 58 0-97	0-96 0-945 0-90	0 945 0-96 0-81
Actual weight of Fat, in lbs. ...	18-2 24-0 19-40	10-9 11-6 19-40	19-2 18 9 19 80	18-9 19 2 16-20
Calculation of Points multiply by 20 ...	2-21 2-32 2-17	1-56 1 56 1-00	2 63 2 45 2 36	2 01 1-90 1-81
Actual weight of Solids other than Fat, in lbs. ...	8 84 9 28 8-68	6 24 6 24 6 40	10-52 9 80 9 44	8-04 7 60 7-24
Calculation of Points multiply by 4 ...	72-80 61-6 26-80	49 50 41-0 18-88	85 40 57-9 29 76	64 90 51 3 22 88
For weight of Milk (lbs.) ...	161 2	110 3	173 1	142 1
For weight of Fat (lbs. × 20) ...	—	—	—	—
For weight of Solids other than Fat (lbs. × 4) ...	161-2	110-3	174-2	144-0
TOTAL POINTS GAINED FOR MILK	161-2	110 3	173 1	142 1
Points for time since Calving ...	—	—	1-1	1-9
TOTAL POINTS GAINED	161-2	110-3	174-2	144-0
Remarks and Awards	3rd Prize.	Highly Commended.	1st Prize; National Milk Cup; Rowallan Cup	Highly Commended.

CLASS 21.—AYRSHIRE COWS.—Continued.

Number Name	281 Craigploch Meadow Sweet brd.	284 Rigg Rosie.	286 Auchenbraun Buntie 44th.	288 Bruching Pearl 7th.
Born	April 11, 1919. 1,372	Feb. 5, 1921. 1,120 Sept. 30. 18	May 5, 1920. 1,134 Oct. 2. 16	Jan., 1917. 1,350 Sept. 9. 39
Live weight, in lbs.	...	...	...	...
Last Calved	July 12. 98	...	...	...
Days since Calving	...	...	...	...
Weight of Milk, 1st day	Morn. Aft. Even. 16 9 20 3 18 0	Morn. Aft. Even. 22 0 21 8	Morn. Aft. Even. 20 3 20 6	Morn. Aft. Even. 27 2 27 3
Weight of Milk, 2nd day	19 0 19 5 16 8	19 5 24 2 19 9	21 9 20 8 22 1	27 6 26 2 25 9
Total	35 9 39 8 34 8	41 5 46 2 41 7	42 4 41 4 42 5	54 8 53 7 53 3
Average	17 95 19 9 17 4	20 75 23 1 20 85	21 2 20 7 21 25	27 4 26 85 26 65
Percentage	8 12 4 30 4 36	3 65 4 36 8 95	4 70 6 00 4 90	8 60 4 30 4 04
Composition of	9 04 8 82 8 84	9 43 9 42 9 03	9 76 9 56 9 33	8 66 8 80 8 52
the Milk.	12 16 13 12 13 20	13 08 13 08 12 08	14 46 15 58 14 32	12 26 13 28 12 56
Actual weight of Fat, in lbs.	0 56 0 86 0 76	0 76 1 01 0 825	1 0 1 24 1 06	0 99 1 18 1 08
Calculation of Points multiply by 20	11 2 17 2 15 20	15 2 20 2 16 5	20 0 24 8 21 20	19 8 23 6 21 60
Actual weight of Solids other than Fat, in lbs.	1 02 1 76 1 54	1 96 2 22 1 89	2 07 1 98 1 08	2 37 2 30 2 27
Calculation of Points multiply by 4	6 48 7 04 6 16	7 84 8 88 7 56	8 28 7 92 7 92	9 48 9 56 9 08
Points—	...	...	...	...
For weight of Milk (lbs.)	55 25	64 70	63 15	80 90
For weight of Fat (lbs. × 20)	43 6	51 9	66 0	65 0
For weight of Solids other than Fat (lbs. × 4)	19 68	24 28	24 12	28 12
Total Points for Milk	118 5	140 9	153 3	174 0
Deductives	...	...	...	...
TOTAL POINTS GAINED FOR MILK	118 5	140 9	153 3	174 0
Points for time since Calving	5 8	...	...	...
TOTAL POINTS GAINED	124 3	140 9	153 3	174 0
Remarks and Awards	Highly Commended.	Highly Commended.	Reserve.	2nd Prize; Reserve, Rowallan Cup.

CLASS 22.—AYRSHIRE HEIFERS (REGISTERED OR ELIGIBLE FOR REGISTRATION WITH A NUMBER IN THE HERD BOOK OR IN THE APPENDICES. BORN ON OR AFTER 1ST AUGUST, 1923).

Number	...	...	...	...	...	290 Ryenmur Clara.	300 Byreholm Fitzia	302 Moorfield Sparkie.	303 Moorfield Vanity 2nd.
Born ...	...	...	...	...	...	Nov. 12, 1923.	Oct. 27, 1923.	Mar. 26, 1924.	Jan. 4, 1924.
Live weight, in lbs. ...	...	...	...	...	...	1,047	944	1,042	1,064
Last Calved ...	...	...	...	...	...	Oct. 5.	Sept. 19.	Sept. 23.	Sept. 20.
Days since Calving ...	...	...	...	...	...	13	29	25	28
Weight of Milk, 1st day	...	...	...	...	...	Morn. Aft. Even.	Morn. Aft. Even.	Morn. Aft. Even.	Morn. Aft. Even.
Weight of Milk, 2nd day	...	...	...	...	...	16-1 16-1 16-0	17-4 16-6 16-5	17-0 17-8 18-1	14-8 15-7 16-3
Weight of Milk, 2nd day	...	...	...	...	...	16-2 16-3 16-7	16-0 16-6 17-1	18-1 17-7 17-7	15-4 16-8 14-4
Total	...	...	...	...	...	32-3 32-4 32-7	33-4 33-2 33-0	35-1 35-0 35-8	30-2 32-5 30-7
Average	...	...	...	...	...	16-15 16-2 16-35	16-7 16-0 16-8	17-55 17-8 17-9	15-1 16-25 15-35
Percentage {Fat	...	...	...	...	...	4-11 5-59 6-03	3-89 4-93 6-18	3-91 4-00 3-89	4-75 4-43 4-81
Composition of {Solids other than Fat	...	...	...	...	...	8-95 9-11 9-15	9-29 9-37 9-12	9-37 9-18 9-11	9-47 9-17 9-27
the Milk. {Total Solids	...	...	...	...	...	13-06 14-70 15-18	13-18 14-30 14-30	13-28 13-18 13-00	14-22 13-40 14-06
Actual weight of Fat, in lbs.	...	...	...	...	...	0-66 0-91 0-99	0-65 0-82 0-87	0-685 0-71 0-70	0-715 0-72 0-74
Calculation of Points multiply by 20	...	...	...	...	...	13-2 18-2 19-80	13-0 16-4 17-40	13-7 14-2 14-0	14-3 14-4 14-80
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	1-44 1-48 1-50	1-55 1-56 1-53	1-64 1-63 1-63	1-43 1-54 1-42
Calculation of Points multiply by 4	...	...	...	...	...	5-76 5-92 6-00	6-20 6-24 6-12	6-56 6-52 6-52	5-72 6-16 5-68
Points—	...	...	...	...	...	48-70 51-2 17-68	50-1 46-8 18-56	53-25 41-9 19-60	46-70 43-5 17-56
For weight of Milk (lbs.) ...	...	...	...	...	...	117-6	115-5	114-8	107-8
For weight of Fat (lbs. × .20)	...	...	...	...	...	—	—	—	—
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	...	—	—	—	—
Total Points for Milk	...	...	...	...	...	117-6	115-5	114-8	107-8
Deductions	...	...	...	...	...	—	—	—	—
TOTAL POINTS GAINED FOR MILK	...	...	...	...	...	117-6	115-5	114-8	107-8
Points for time since Calving	...	...	...	...	...	—	—	—	—
TOTAL POINTS GAINED	...	...	...	...	...	117-6	115-5	114-8	107-8
Remarks and Awards	...	...	...	...	...	1st Prize.	2nd Prize.	3rd Prize.	Highly Commended.

CLASS 22.—AYRSHIRE HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1923)—Continued.

Number Name	309 Cargen Holm Maud 20th.	310 Cargen Holm Lolly 7th. Mar 25, 1924. 1,060 Sept 17, 31	311 Cargen Holm White Stockings 11th Jan. 26, 1924 1,053 Oct 4, 14	313 Kilfilan Gloria June 1, 1924 1,038 Sept 14, 34
Born
Live weight, in lbs.
First Calved
Days since Calving
Weight of Milk, 1st day
Weight of Milk, 2nd day
Total
Average
Percentage of Fat
Composition of Solids other than Fat
the Milk
Total Solids
Actual weight of Fat, in lbs
Calculation of Points multiply by 20
Actual weight of Solids other than Fat, in lbs.
Calculation of Points multiply by 4
Points—
For weight of Milk (lbs.)
For weight of Fat (lbs. × 20)
For weight of Solids other than Fat (lbs. × 4)
Total Points for Milk
Deductions
TOTAL POINTS GAINED FOR MILK
Points for time since Calving
TOTAL POINTS GAINED
Remarks and Awards

Highly Commended.

Highly Commended
Murrel Countess de la
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Warr Prize.Highly Commended.
Murrel Countess de la
Warr Prize.

CLASS 23.—GUERNSEY COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK.
BORN ON OR PREVIOUS TO 1ST AUGUST, 1921).

Number Name	314 Lemon Gadfly.	316 Hadham Goldstream 11th.	317 Mawgan Lady Glen 2nd	318 Downe Fleur of Vimera	321 Cheminette of Cartelot.
Born	Sept. 15, 1920. 1,178	Sept. 3, 1919 1,017	May 1, 1918 1,030	Mar. 26, 1918 1,157	June 5, 1918 997
Live weight, in lbs.	18-3	16-5	15-3	22-9	20-8
Last Calved	Oct. 4, 14	June 20, 120	June 15, 125	June 26 114	July 16, 94
Days since Calving					
Weight of Milk, 1st day	Morn. 18-3 Even. 18-8	Morn. 13-6 Alt. 16-5 Even. 16-4	Morn. 15-3 Even. 15-9	Morn. 27-0 Even. 22-9	Morn. 20-8 Even. 21-2
Weight of Milk, 2nd day	17-6	19-0	19-2	25-6	22-0
Total	35-9	37-0	38-0	52-6	42-8
Average	17-95	18-95	19-0	26-3	21-4
Percentage { Fat	5-41	5-03	7-62	3-77	3-49
Composition of { Solids other than Fat	9-53	9-65	9-88	8-51	9-29
{ Milk	14-94	15-68	17-50	12-28	12-78
{ Total Solids	0-97	1-12	1-45	0-99	0-75
Actual weight of Fat, in lbs.					
Calculation of Points multiply by 20	19-4	22-4	29-00	19-8	15-0
Actual weight of Solids other than Fat, in lbs.	1-71	1-83	1-88	2-24	1-99
Calculation of Points multiply by 4	6-84	7-32	7-52	8-96	7-96
Points—					
For weight of Milk (lbs.)	55-90	48-15	33-25	50-0	42-3
For weight of Fat (lbs. × 20)	70-80	49-6	32-2	41-6	30-0
For weight of Solids other than Fat (lbs. × 4)	21-68	17-88	12-0	17-52	15-72
Total Points for Milk	148-4	115-6	67-5	109-1	88-0
Deductions	—	—	—	—	—
TOTAL POINTS GAINED FOR MILK	148-4	115-6	67-5	109-1	88-0
Points for time since Calving	—	8-0	8-5	7-4	5-4
TOTAL POINTS GAINED	148-4	123-6	76-0	116-5	93-4
Remarks and Awards	1st Prize, Stagenhoe Cup.	2nd Prize, i Reserve, Stagenhoe Cup.		3rd Prize.	Reserve.

CLASS 23.—GUERNSEY COWS (BORN ON OR PREVIOUS TO 1ST AUGUST, 1921)—Continued.

Number	...	...	...	...	...	323
Name	...	...	...	...	...	Hockley Marigold.
Born	...	...	...	...	...	Dec. 7, 1918.
Live weight, in lbs.	...	...	...	...	...	905
Last Calved	...	...	...	...	...	May 15.
Days since Calving	...	...	...	...	...	156
Weight of Milk, 1st day	...	...	...	...	...	Morn. Even.
Weight of Milk, 2nd day	...	...	...	...	...	13.8 15.9
	...	...	...	...	...	15.2 15.3
Total	...	...	...	...	...	29 0 31.2
Average	...	...	...	...	...	14.5 15.0
Percentage of Fat	...	...	...	...	...	4.25 4.58
Composition of Solids other than Fat	...	...	...	...	...	0.21 0.48
the Milk. Total Solids	...	...	...	...	...	13.40 14.06
Actual weight of Fat, in lbs.	...	...	...	...	...	0.015 0.715
Calculation of Points multiply by 20	...	...	...	...	...	12.3 14.3
Actual weight of Solids other than Fat, in lbs.	...	...	...	...	...	1.34 1.43
Calculation of Points multiply by 4	...	...	...	...	...	5.36 5.92
Points—	...	...	...	...	...
For weight of Milk (lbs.)	...	...	...	...	...	30 1
For weight of Fat (lbs. $\times 20$)	...	...	...	...	...	20.4 20.9
For weight of Solids other than Fat (lbs. $\times 4$)	...	...	...	...	...	11.23
Total Points for Milk	...	...	...	...	...	68.0
Deductions	...	...	...	...	...	—
TOTAL POINTS GAINED FOR MILK	...	...	...	...	...	68 0
Points for time since Calving	...	...	...	...	...	11.6
TOTAL POINTS GAINED	...	...	...	...	...	79 6
Remarks and Awards	...	...	...	...	...

CLASS 24.—GUERNSEY COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK.
BORN AFTER 1ST AUGUST, 1921, AND PREVIOUS TO 1ST AUGUST, 1923).

Number Name ..	324 Hayes Lady Cecilia 4th.	326 Hadham Nellie 14th.	327 Jenny's Princess.	328 Cadeull Lizzie.	329 Cunningham Muriel.
Born ..	Feb. 17, 1923.	Nov. 14, 1922.	Aug. 5, 1921.	April 11, 1923	May 10, 1923
Live weight, in lbs. ..	906	898	798	1,001	1,098
Last Calved ..	May 10.	Sept. 16.	May 3.	Aug. 20.	Aug. 10.
Days since Calving ..	102	82	198	80	60
Weight of Milk, 1st day ..	Mon. Even. 15.7 11.1	Morn. Aft. Even. 13.2 13.4 13.7	Morn. Even. 21.0 22.0	Morn. Even. 15.6 15.8	Morn. Even. 18.3 19.4
Weight of Milk, 2nd day ..	12.3 13.0	14.9 14.3 16.6	20.9 21.5	17.5 17.7	20.2 21.2
Total ..	28.0 24.1	28.1 27.7 20.3	42.8 43.5	33.1 33.5	38.5 40.6
Average ..	14.0 12.05	14.05 13.85 14.05	21.4 21.75	16.55 16.75	19.25 20.3
Percentage { Fat ..	5.71 4.01	5.15 5.56 5.59	4.12 3.66	3.29 5.90	5.53 4.55
Composition of { Solids other than Fat ..	8.71 9.27	8.99 9.00 9.11	8.88 9.02	8.67 9.70	9.57 9.97
the Milk. { Total Solids ..	14.42 13.28	14.14 14.56 14.70	13.00 12.68	11.96 15.60	15.10 14.52
Actual weight of Fat, in lbs. ..	0.80 0.485	0.725 0.77 0.82	0.88 0.79	0.545 0.99	1.07 0.925
Calculation of Points multiply by 20 ..	16.0 9.7	14.5 15.4 16.40	17.6 15.8	10.9 19.8	21.4 28.50
Actual weight of Solids other than Fat, in lbs ..	1.22 1.13	1.26 1.25 1.33	1.9 1.95	1.43 1.02	1.84 2.03
Calculation of Points multiply by 4 ..	4.88 4.52	5.04 5.00 5.32	7.6 7.80	5.72 6.48	7.36 8.12
Points—					
For weight of Milk (lbs.) ..	26.05	42.55	43.15	33.3	39.55
For weight of Fat (lbs. × 20) ..	25.7	46.3	33.4	30.7	39.9
For weight of Solids other than Fat (lbs. × 4) ..	9.4	15.36	15.4	12.2	15.48
Total Points for Milk ..	51.2	104.2	92.0	76.2	94.9
Deductions ..	—	—	—	—	—
TOTAL POINTS GAINED FOR MILK ..	51.2	104.2	92.0	76.2	94.9
Points for time since Calving ..	11.2	—	11.8	1.9	2.0
TOTAL POINTS GAINED ..	62.4	104.2	103.8	78.1	96.9
Remarks and Awards ..		1st Prize.	2nd Prize.	Reserve.	3rd Prize.

CLASS 25.—GUERNSEY HEIFERS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1923).

Number Name ...	331 Hayes Lola 6th Sept 24, 1923 1923 Feb. 21. 239	332 Kittie's Butterfat. Jan. 31, 1924 882 July 5. 105	333 Dowrie Princess Mary 7th. June 23, 1924 891 Oct 4. 14	334 Cathall Quantic. Mar 4, 1924 817 Aug 9. 70	435 Dowrie Lady Vera's Beauty 4th. Feb. 26, 1924. 920 Sept. 10 38	437 Cathall Glen. June 2, 1924. 849 Aug. 11. 68
Born ...	Sept 24, 1923	Jan. 31, 1924	June 23, 1924	Mar 4, 1924	Feb. 26, 1924.	June 2, 1924.
Lave weight, in lbs. ...	17.3	15.0	11.3	12.7	11.1	10.7
Last Calved ...	Feb. 21.	July 5.	Oct 4.	Aug 9.	Sept. 10	Aug. 11.
Days since Calving	239	105	14	70	38	68
Weight of Milk, 1st day	17.3	15.0	11.3	12.7	11.1	10.7
Weight of Milk, 2nd day	16.2	14.6	14.6	13.2	10.5	10.6
Total	33.5	30.5	25.9	25.9	21.6	21.3
Average	16.75	15.25	12.95	12.95	10.8	10.65
Percentage { Fat Composition of { Solids other than Fat ...	5.21	4.46	4.69	3.63	1.22	3.61
the Milk. { Total Solids ...	8.91	9.36	8.27	9.01	9.66	9.63
Actual weight of Fat, in lbs. ...	14.12	14.10	12.06	12.61	13.88	12.60
Calculation of Points multiply by 20 ...	0.875	0.68	0.61	0.17	0.455	0.37
Actual weight of Solids other than Fat, in lbs. ...	17.50	13.6	12.2	9.4	9.1	7.1
Calculation of Points multiply by 4 ...	1.49	1.47	1.07	1.17	1.04	0.93
Points—	5.96	5.88	4.28	4.68	4.10	3.92
For weight of Milk (lbs.) ...	29.7	31.65	28.2	26.45	21.05	20.9
For weight of Fat (lbs. × 20) ...	28.6	29.4	32.8	21.2	18.8	16.3
For weight of Solids other than Fat (lbs. × 4) ...	10.84	12.2	10.24	9.44	8.08	7.64
Total Points for Milk ...	70.1	73.3	71.2	57.1	47.9	44.8
Deductions ...	—	6.5	10.0	—	—	—
TOTAL POINTS GAINED FOR MILK ...	70.1	79.8	61.2	57.1	47.9	44.8
Points for time since Calving ...	12.0	2nd Prize.	61	3.0	—	2.8
TOTAL POINTS GAINED ...	82.1	86.3	67.2	60.1	47.9	47.6
Remarks and Awards ...	1st prize.	2nd Prize.	Highly Commended.	Highly Commended.	—	—

CLASS 25.—GUERNSEY HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1923)—Continued.

Number Name ...	...	...	...	...	338 Hockey Princess May.	339 Trewthen Prose.	340 Trewthen Poetry.
Born ...	...	...	...	...	Aug. 26, 1923. 967	May 10, 1924. 918	May 10, 1924. 850
Live weight, in lbs. ...	...	...	...	...	July 24. 86	Aug. 6. 73	Aug. 8. 71
Last Calved ..	...	...	...	...
Days since Calving ..	...	...	...	...
Weight of Milk, 1st day ...	...	...	...	...	Morn. Even. 14.1 14.9	Morn. Even. 12.0 13.7	Morn. Even. 12.8 14.6
Weight of Milk, 2nd day ...	...	...	...	...	14.0 14.4	12.4 13.5	14.7 15.4
Total	...	...	...	...	28.1 29.3	24.4 27.2	27.5 30.0
Average	...	...	...	...	14.05 14.65	12.2 13.6	13.75 15.0
Percentage { Fat	...	...	...	...	4.83 4.85	4.06 4.59	4.87 5.18
Composition of { Solids other than Fat	...	...	...	...	9.25 9.31	9.10 8.93	9.40 9.32
the Milk, { Total Solids	...	...	...	...	14.08 14.16	13.16 13.52	14.30 14.56
Actual weight of Fat, in lbs.	...	...	...	...	0.68 0.71	0.495 0.625	0.67 0.78
Calculation of Points multiply by 20	...	...	...	...	13.6 14.2	9.9 12.50	13.4 15.6
Actual weight of Solids other than Fat, in lbs. ...	...	...	...	...	1.3 1.36	1.11 1.21	1.3 1.40
Calculation of Points multiply by 4	...	...	...	...	5.2 5.44	4.44 4.84	5.2 5.6
Points—	...	...	...	...
For weight of Milk (lbs.) ...	...	...	...	...	28.7	25.8	28.75
For weight of Fat (lbs. × 20)	...	...	...	...	27.8	22.4	29.0
For weight of Solids other than Fat (lbs. × 4)	...	...	...	...	10.64	9.28	10.8
Total Points for Milk	...	...	...	...	67.1	57.5	68.6
Deductions	...	...	...	...	—	—	—
TOTAL POINTS GAINED FOR MILK	...	...	...	...	67.1	57.5	68.6
Points for time since Calving	...	...	...	...	4.6	3.3	3.1
TOTAL POINTS GAINED	...	...	...	...	71.74	60.8	71.65
Remarks and Awards	...	...	...	...	3rd Prize.	Highly Commended.	Reserve.

CLASS 26.—JERSEY COWS (ENGLISH OR ISLAND BRED. ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR PREVIOUS TO 1ST AUGUST, 1921).

Number Name ...	342 Windlesham Windflower.	343 Ursamie Belle.	345 Hamletta's Queen.	346 Roberta's Star 2nd.	350 Mastermaid.	351 Westlands Cids Lily.
Born ...	Feb. 6, 1920. 971	Jan. 24, 1918. 886	Mar. 10, 1918. 738	Oct. 15, 1920. 804	Jan. 19, 1920. 883	Feb. 15, 1921.
Lave weight, in lbs. ...	Sept. 4. 44	May 18. 153	June 8 132	Aug. 3. 76	Mar. 31. 201	Sept. 14. 34
Last Calved ...						
Days since Calving ...						
Weight of Milk, 1st day	Morn. 22-1	Morn. 13-7	Morn. 20-8	Morn. 19-0	Morn. 17-7	Morn. 19-0
Weight of Milk, 2nd day	Even. 22-3	Even. 13-6	Even. 18-8	Even. 23-1	Even. 14-7	Even. 19-0
	41-5	27-2	34-7	44-8	37-8	38-9
Total	43-7	27-0	34-8	42-1	37-8	37-9
Average	20-75	13-5	17-35	22-4	14-9	18-95
Percentage { Fat	4-85	7-02	3-16	3-05	8-43	5-87
Composition of { Solids other than Fat	8-01	9-64	8-94	9-45	8-67	9-71
the Milk. ...	13-40	16-66	12-10	12-50	17-10	15-58
Actual weight of Fat, in lbs. ...	1-01	0-94	0-55	0-68	1-23	1-09
Calculation of Points multiply by 20	20-2	19-0	11-0	13-6	25-2	21-8
Actual weight of Solids other than Fat, in lbs. ...	1-70	1-31	1-55	2-12	1-29	1-8
Calculation of Points multiply by 4	7-16	5-24	6-20	8-48	5-16	7-2
Points—						
For weight of Milk (lbs.) ...	42-6	27-1	34-75	48-45	33-8	37-45
For weight of Fat (lbs. × 20)	39-0	37-8	25-2	20-4	49-0	44-4
For weight of Solids other than Fat (lbs. × 4)	14-86	10-28	12-52	16-44	12-0	14-4
Total Points for Milk	90-6	75-2	72-5	89-3	94-8	96-3
Deductions	—	—	—	—	—	—
TOTAL POINTS GAINED FOR MILK	90-6	75-2	72-5	89-3	94-8	96-3
Points for time since Calving	0-4	11-3	9-2	3-0	12-0	—
TOTAL POINTS GAINED	97-0	86-5	81-7	92-9	106-8	96-3
Remarks and Awards	Highly Commended.			Highly Commended Reserve, Morrison Trophy	Highly Commended National Butter Cup.	Highly Commended.

CLASS 26.—JERSEY COWS (ENGLISH OR ISLAND BRED. BORN ON OR PREVIOUS TO 1ST AUGUST, 1921)—Continued.

Number Name ..	352 Fontaines Lilac.	353 Fair Margaret 4th.	357 Clairette.	358 Lily of the Valley.	359 Marnette's Violet.	362 Observer's Belle.
Born ..	Feb. 12, 1920. 895	Sept. 13, 1920. 804	Mar. 23, 1918. 1,111	Oct. 26, 1917. 977	July 28, 1917. 911	June 11, 1921. 923
Live weight, in lbs. ...	May 13. 168	July 25. 85	July 10. 91	Sept 11. 37	April 11. 100	Aug. 7. 72
Last Calved ...						
Days since Calving ...						
Weight of Milk, 1st day ...	Morn. Even. 17-2 18-4 17-2 16-8	Morn. Even. 16-0 17-3 15-4 17-5	Morn. Even. 25-1 23-3 25-2 20-9	Morn. Even. 27-1 28-5 27-2 28-0	Morn. Even. 22-6 22-8 22-9 22-3	Morn. Even. 31-7 21-9 20-6 19-6
Weight of Milk, 2nd day ...	34-4 35-2	31-4 34-8	50-3 50-2	54-3 56-5	45-5 45-1	42-3 41-5
Total	17-2 17-6	15-7 17-4	25-15 25-1	27-15 28-25	22-75 22-55	21-15 20-75
Average	4-82 4-90 9-18 8-82 13-50 13-72 0-74 0-86	4-19 4-46 9-15 8-88 13-34 13-34 0-65 0-78	4-46 4-69 9-20 8-93 13-66 13-62 1-122 1-177	2-92 4-52 8-82 8-84 11-74 13-35 0-79 1-28	4-04 5-16 9-14 9-16 14-08 14-32 1-124 1-164	5-59 5-47 9-27 9-51 14-86 14-98 1-18 1-13
Percentage (Fat Composition of the Milk. Total Solids Actual weight of Fat, in lbs. ...	14-8 17-2	13-2 15-6	22-44 23-54	15-8 25-6	22-48 23-28	23-6 22-6
Calculation of Points multiply by 20 ...	1-58 1-55	1-44 1-54	2-314 2-24	2-4 2-50	2-070 2-066	1-96 1-97
Actual weight of Solids other than Fat, in lbs. ...	6-32 6-20	5-76 6-16	9-26 8-96	9-6 10-0	8-316 8-264	7-84 7-88
Calculation of Points multiply by 4 ...	For weight of Milk (lbs.) ... For weight of Fat (lbs. × 20) ... For weight of Solids other than Fat (lbs. × 4) ...	33-1 28-8 11-02	50-25 45-98 18-22	55-4 41-4 19-6	45-3 45-76 16-58	41-9 40-2 15-72
Total Points for Milk ...	79-3	73-8	114-45	110-4	107-61	103-8
Deductions ...	—	—	—	10-0	—	—
TOTAL POINTS GAINED FOR MILK	79-3	73-8	114-45	106-4	107-64	103-8
Points for time since Calving ...	11-8	4-5	5-1	—	12-0	3-2
TOTAL POINTS GAINED	91-1	78-3	119-55	106-4	119-64	107-0
Remarks and Awards	Highly Commended.		3rd Prize.	Highly Commended.	2nd Prize, Reserve, National Butter Cup.	Reserve.

Number Name ...	..	..	..	..	..	363 Mastermans Golden Citrona.
Born ...	..	..	..	..	..	June 18, 1920. 1,117
Live weight, in lbs. ...	..	..	..	..	..	June 11. 139
Last Calved ..	..	..	..	..	..
Days since Calving ..	..	..	..	..	..
Weight of Milk, 1st day	..	..	..	..	..	Morn. Aft. Even
Weight of Milk, 2nd day	..	..	..	..	..	16.2 12.3 13.1
	..	..	..	..	..	13.0 12.7 13.4
Total	..	..	..	..	..	29.2 25.0 26.5
Average	..	..	..	..	..	14.6 12.5 13.25
Percentage { Fat	..	..	..	..	..	7.06 6.28 9.05
Composition of { Solids other than Fat	..	..	..	..	..	9.98 10.12 10.55
the Milk. { Total Solids	..	..	..	..	..	17.04 16.40 19.60
Actual weight of Fat, in lbs.	..	..	..	..	..	1.03 0.785 1.20
Calculation of Points multiply by 20	..	..	..	..	..	20.6 15.7 24.0
Actual weight of Solids other than Fat, in lbs.	..	..	..	..	..	1.46 1.27 1.40
Calculation of Points multiply by 4	..	..	..	..	..	5.84 5.08 5.60
Points—	..	..	..	..	..
For weight of Milk (lbs.) ...	..	..	..	..	..	40.35
For weight of Fat (lbs. × 20)	..	..	..	..	..	60.3
For weight of Solids other than Fat (lbs. × 4)	..	..	..	..	..	16.52
Total Points for Milk	..	..	..	..	..	117.2
Deductions	..	..	..	..	..	—
TOTAL POINTS GAINED FOR MILK	..	..	..	..	..	117.2
Points for time since Calving	..	..	..	..	..	8.9
TOTAL POINTS GAINED	..	..	..	..	..	126.1
Remarks and Awards	..	..	..	..	..	1st Prize.

CLASS 27.—JERSEY COWS—(ENGLISH OR ISLAND BREED, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK, BORN AFTER 1ST AUGUST, 1921, AND PREVIOUS TO 1ST AUGUST, 1923).

Number Name ..	364 Cids Raleigh Spectre.	366 Lingen Sweet Thyme.	367 Stapleford Stella Mary.	370 Hollyhock of Hollywood	371 Sixty Five.
Born ...	Mar. 1, 1922. 873	July 17, 1923. 843	May 28, 1923. 749	April 3, 1922. 813	July 24, 1922. 887
Live weight, in lbs. ...	17-4	12 0	13 4	17-5	17-4
Last Calved ..	April 21, 180	June 23, 117	June 8, 132	July 5 105	Sept. 7, 41
Days since Calving ..	...	...	...	...	...
Weight of Milk, 1st day ...	Morn. Even. 16-7 17-4	Morn. Aft. Even. 10 8 12 0 10 5	Morn. Even. 14 9 13 4	Morn. Even. 17 5 17-4	Morn. Even 22-4 24-3
Weight of Milk, 2nd day ...	18 8 19-1	10-6 10-5 10 1	16-8 18 5	17 0 16-8	23-1 27 3
Total ..	35-5 36-5	21 4 22-5 20-6	31-7 33 9	34 5 34-2	45 5 51-6
Average ..	17-75 18 25	10-7 11 25 10-3	15-85 16 95	17-25 17-1	22 75 25-8
Percentage { Fat Composition of { Solids other than Fat the Milk. { Total Solids	5-09 6 58 9 49 9 38 15 48 15 06	5-75 6 46 9 07 9 16 9 26 14 82 15 02 16 84	6-82 5-83 8 78 8 03 15 10 14 76	8 07 4-76 9 11 8 82 13-08 13 53	4-85 5-15 9 31 9 41 14 16 14 56
Actual weight of Fat, in lbs. ...	1-06 1 20	0 615 0 725 0 73	1 00 0 99	0 69 0 81	1 1 1 33
Calculation of Points multiply by 20 ..	21 2 24 0	12 3 14 5 14 60	20 0 19 8	13 8 16 2	22 0 26 6
Actual weight of Solids other than Fat, in lbs. ...	1-68 1-71	0 97 1 03 0 95	1 39 1 51	1 58 1 50	2 12 2 43
Calculation of Points multiply by 4 ..	6-72 6-84	3 88 4 12 3 80	5 56 6 04	6 32 6 00	8 48 9 72
For weight of Milk (lbs.) ...	30 0	32 25	32 8	34 35	48 25
For weight of Fat (lbs. × 20) ...	45 2	41 4	39 8	30 0	48 6
For weight of Solids other than Fat (lbs. × 4) ...	13 56	11 80	11 6	12 82	18 2
Total Points for Milk ...	94 8	85 5	84 2	76 7	115 4
Deductions ...	—	—	—	—	—
TOTAL POINTS GAINED FOR MILK	94 8	85 5	84 2	76 7	115 4
Points for time since Calving ..	12 0	7 7	9 2	6 5	0 1
TOTAL POINTS GAINED ..	106 8	93 2	93 4	83 2	115 5
Remarks and Awards ...	2nd Prize.	Highly Commended.	Highly Commended.	Highly Commended.	1st Prize

CLASS 27.—JERSEY COWS (BORN AFTER 1ST AUGUST, 1921, AND PREVIOUS TO 1ST AUGUST, 1923)—Continued.

Number Name ..	372 So Gay.	374 Postmistress.	376 Templetc.	377 Treasure 3rd.	378 Valse Bruce 2nd.
Born ...	Jan. 10, 1922. 913	Jan. 22, 1922. 1,045	Oct. 23, 1921. 706	Mar. 6, 1923. 855	April 4, 1923. 903
Live weight, in lbs. ...	April 28. 173	Jan. 7. 284	May 28. 143	April 24. 177	June 7. 133
Last Calved ...					
Days since Calving .					
Weight of Milk, 1st day .	Morn. Even. 16.7 17.5	Morn. Even. 20.8 19.7	Morn. Even. 21.6 19.7	Morn. Even. 18.8 19.9	Morn. Even. 17.6 19.1
Weight of Milk, 2nd day .	17.4 18.8	19.3 19.8	10.0 11.2	19.5 18.9	10.0 19.5
Total	34.1 36.3	40.1 38.8	32.2 30.9	38.3 38.6	30.6 38.6
Average ...	17.05 18.15	20.05 19.4	16.1 15.45	19.15 19.4	18.3 19.3
Percentage of Fat	5.20 5.40	4.59 4.60	4.65 5.25	1.07 4.86	4.41 4.92
Composition of Solids other than Fat ...	9.10 9.33	9.25 9.34	9.27 8.99	9.65 9.56	9.17 9.14
the Milk. Total Solids ...	14.30 14.72	13.84 13.94	13.92 14.21	13.72 14.12	13.58 14.06
Actual weight of Fat, in lbs. ...	0.89 1.00	0.92 0.895	0.75 0.81	0.78 0.945	0.805 0.95
Calculation of Points multiply by 20 .	17.8 20.0	18.4 17.9	15.0 16.2	15.6 18.9	16.1 19.0
Actual weight of Solids other than Fat, in lbs. ...	1.55 1.68	1.86 1.81	1.40 1.39	1.85 1.85	1.68 1.76
Calculation of Points multiply by 4 .	6.20 6.72	7.44 7.24	5.96 5.56	7.40 7.40	6.72 7.04
Points—					
For weight of Milk (lbs.) ...	35.2	39.45	31.55	38.55	37.6
For weight of Fat (lbs. × 20)	37.8	30.3	31.2	34.5	35.1
For weight of Solids other than Fat (lbs. × 4)	12.92	14.68	11.52	14.8	13.76
Total Points for Milk	85.9	90.4	74.3	87.9	86.5
Deductions . . .	—	—	—	—	—
TOTAL POINTS GAINED FOR MILK	85.9	90.4	74.3	87.9	86.5
Points for time since Calving ...	12.0	12.0	10.3	12.0	9.3
TOTAL POINTS GAINED	97.9	102.4	84.6	99.9	95.8
Remarks and Awards ...	Highly Commended.	3rd Prize.	Highly Commended.	Reserve.	Highly Commended.

CLASS 28.—JERSEY HEIFERS—(ENGLISH OR ISLAND BREED, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK, BORN ON OR AFTER 1ST AUGUST, 1923).

Number Name ...	383 Countess Pauline.	384 Prudence of Hollywood.	385 Nancy.	386 Imogen Oxford Jasmine.	387 Spring Fern.
Born ...	June 11, 1924, 694	Aug. 16, 1923, 816	Jan. 29, 1924, 710	Aug. 9, 1924, 739	Mar. 25, 1924, 676
Live weight, in lbs. ...	Aug. 6, 73	June 30, 110	Aug. 4, 76	Oct. 1, 17	Aug. 28, 51
Last Calved ...					
Days since Calving					
Weight of Milk, 1st day	Morn. Aft. Even.	Morn. Even.	Morn. Even.	Morn. Even.	Morn. Even.
Weight of Milk, 2nd day	11-0 14-8 12-2	11-5 13-7	10-4 10-3	11-3 12-3	9-8 8-9
	12-0 11-6 11-5	13-2 12-4	2-8 9-7	13-4 13-1	12-3 12-5
Total	23-0 26-4 23-7	24-7 26-1	13-2 20-0	24-7 25-4	22-1 21-4
Average	11-5 13-2 11-85	12-35 13-05	6-6 10-0	12-35 12-7	11-05 10-7
Percentage { Fat ...	4-46 6-81 6-07	3-32 5-20	4-90 5-29	4-88 4-05	5-29 3-67
Composition of { Solids other than Fat ...	8-86 9-07 8-67	10-36 9-43	9-50 8-93	9-52 9-47	9-35 9-07
the Milk. { Total Solids ...	13-32 16-88 14-74	13-68 14-62	14-40 14-22	14-40 13-52	14-64 13-34
Actual weight of Fat, in lbs. ...	0-51 0-90 0-72	0-41 0-08	0-32 0-530	0-60 0-515	0-585 0-395
Calculation of Points multiply by 20	10-2 13-0 14-40	8-2 13-6	6-4 10-6	12-0 10-30	11-7 7-9
Actual weight of Solids other than Fat, in lbs. ...	1-02 1-20 1-03	1-28 1-23	0-63 0-80	1-18 1-20	1-03 1-04
Calculation of Points multiply by 4	4-08 4-8 4-12	5-12 4-92	2-52 3-500	4-72 4-8	4-12 4-16
For weight of Milk (lbs.) ...	26-55	25-4	16-6	23-05	21-75
For weight of Fat (lbs. × 20)	49-6	21-8	17-0	22-3	19-6
For weight of Solids other than Fat (lbs. × 4)	13-00	10-04	6-08	9-52	8-28
Total Points for Milk	92-2	57-2	39-7	56-9	49-6
Deductions	—	—	—	—	—
TOTAL POINTS GAINED FOR MILK	92-2	57-2	39-7	56-9	49-6
Points for time since Calving	3-3	7-0	3-5	—	1-1
TOTAL POINTS GAINED	95-5	64-2	43-2	56-9	50-7
Remarks and Awards	1st Prize.	Highly Commended.			

CLASS 28.—JERSEY HEIFERS (ENGLISH OR ISLAND BRED. BORN ON OR AFTER 1ST AUGUST, 1923)—Continued.

Number Name	390 Lee's Crystal.	391 Patsy's May 3rd.	392 Loseley Dazzle.	393 Penshurst Joan.	398 Numrod's Rose.	401 Cels Petune
Born	Mar. 1, 1924. 710	Mar. 6, 1924. 741	June 30, 1924. 693	May 8, 1924. 878	Aug. 20, 1924. 728	April 12, 1924. 831
Live weight, in lbs.	15.1	16.2	11.2	13.2	8.5	17.2
Last Calved	Sept. 15. 33	Aug. 30. 49	July 28. 82	Sept. 20. 28	Aug. 23. 56	Sept. 18. 30
Days since Calving	...	...	...	...	...	...
Weight of Milk, 1st day	Morn. Even. 15.1 19.2	Morn. Even. 16.2 17.6	Morn. Even. 11.2 10.2	Morn. Even. 13.2 15.5	Morn. Even. 8.5 17.2	Morn. Even. 13.0 17.2
Weight of Milk, 2nd day	15.6 17.2	16.0 19.3	8.8 9.0	13.7 15.3	11.4 12.2	14.7 15.8
Total	30.7 36.4	32.2 36.9	20.0 19.2	26.9 30.8	19.9 29.4	27.7 33.0
Average	15.35 18.2	16.1 18.45	10.0 9.6	13.45 15.4	9.95 14.7	13.85 16.5
Percentage	3.23 4.49	4.02 5.04	5.08 4.89	4.83 4.60	2.29 4.61	4.65 5.20
Composition of Milk.	9.03 9.05	9.62 9.32	9.56 9.75	9.25 9.44	9.79 8.70	9.67 9.58
Actual weight of Fat, in lbs.	12.26 13.54	13.64 14.36	14.64 14.04	14.08 14.04	12.08 13.61	14.82 14.78
Calculation of Points multiply by 20	0.495 0.82	0.65 0.93	0.51 0.47	0.65 0.71	0.28 0.725	0.645 0.89
Actual weight of Solids other than Fat, in lbs.	9.9 16.4	13.0 18.6	10.2 9.4	13.0 14.2	5.6 14.50	12.9 17.2
Calculation of Points multiply by 4	1.39 1.65	1.55 1.72	0.96 0.94	1.25 1.45	0.97 1.28	1.34 1.58
Points—	5.56 6.60	6.20 6.88	3.84 3.76	5.0 5.80	3.88 5.12	5.36 6.32
For weight of Milk (lbs.)	33.55	34.55	19.6	28.85	24.65	30.35
For weight of Fat (lbs. × 20)	26.3	31.6	19.6	27.2	20.1	30.1
For weight of Solids other than Fat (lbs. × 4)	12.16	13.08	7.6	10.8	9.0	11.68
Total Points for Milk	72.0	79.2	46.8	66.9	53.8	72.1
Deductions	—	—	—	—	10.0	—
TOTAL POINTS GAINED FOR MILK	72.0	79.2	46.8	66.9	43.8	72.1
Points for time since Calving	—	0.9	4.2	—	1.6	—
TOTAL POINTS GAINED	72.0	80.1	51.0	66.9	45.4	72.1
Remarks and Awards	Reserve	2nd Prize.		Highly Commended.		3rd Prize.

CLASS 28.—JERSEY HEIFERS (BORN ON OR AFTER 1ST AUGUST, 1923)—Continued.

CLASS 29.—KERRY COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK).

Number Name	402 Golden Beech Daisy.	404 Coquet Gipsy.	406 Hattingley Haughty.	407 Hattingley High Kick.
Born	Aug 25, 1923.	May 12, 1917.	May 30, 1920.	June, 1919
Live weight, in lbs.	855	1,003	1,188	978
Last Calved	Mar. 28.	Sept 13.	Sept 13.	Sept 25.
Days since Calving	204	35	35	23
Weight of Milk, 1st day	Morn. Even. 5.9 21.3	Morn. Even. 27.8 29.6	Morn. Even. 25.6 24.2	Morn. Even. 22.1 23.2
Weight of Milk, 2nd day	14.9 14.3	29.4 27.3	26.2 24.5	24.4 24.0
Total	20.8 35.6	57.2 56.9	51.8 48.7	46.5 47.2
Average	10.4 17.8	28.6 28.45	25.9 24.85	23.25 23.6
Percentage Fat	2.28 4.93	3.27 4.30	4.10 4.30	4.03 4.65
Composition of Milk. { Solids other than Fat	9.44 9.85	8.70 9.02	9.24 9.00	9.23 9.17
Actual weight of Fat, in lbs.	11.72 14.28	12.06 13.32	13.34 13.00	13.26 13.82
Calculation of Points multiply by 20	0.24 0.88	0.935 1.23	1.06 1.05	0.935 1.10
Actual weight of Solids other than Fat, in lbs	4.8 17.6	18.7 24.6	21.2 21.0	18.7 22.0
Calculation of Points multiply by 4	0.98 1.67	2.51 2.57	2.40 2.34	2.15 2.17
Points—	3.92 6.68	10.04 10.28	9.60 9.36	8.60 8.68
For weight of Milk (lbs.)	28.2	57.05	50.25	46.85
For weight of Fat (lbs. x 20)	22.4	43.3	42.2	40.7
For weight of Solids other than Fat (lbs. x 4)	10.6	20.32	18.96	17.28
Total Points for Milk	61.2	120.7	111.4	104.8
Deductions	10.0	—	—	—
TOTAL POINTS GAINED FOR MILK	51.2	120.7	111.4	104.8
Points for time since Calving	12.0	—	—	—
TOTAL POINTS GAINED	63.2	120.7	111.4	104.8
Remarks and Awards	Highly Commended.	1st Prize, Kerry Cup.	2nd Prize, Reserve, Kerry Cup.	3rd Prize.

CLASS 30.—KERRY HEIFERS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1923).

Number Name ...	411 Wadhams Flash Mona.	412 Wadhams Flash Drops.	416 Chadton Countess Ist.	417 Moonstone of Warren.
Born ...	May 23, 1924. 744	Dec. 9, 1923. 786	Sept. 1, 1923. 993	Jan. 15, 1924. 843
Live weight, in lbs. ...	Sept. 5. 43	Sept. 1. 47	Sept. 14. 34	Aug. 13. 66
Last Calved ...	Morn. Even. 14.8 15.2	Morn. Even. 15.5 15.8	Morn. Even. 12.5 14.1	Morn. Even. 12.7 14.3
Days since Calving ...	17.8 16.8	14.5 16.2	12.0 14.8	12.7 13.8
Weight of Milk, 1st day ...	32.6 32.0	30 0 32.0	25.4 28.0	25.4 28.1
Weight of Milk, 2nd day ...	16.3 16.0	15.0 16.0	12.7 14.45	12.7 14.05
Total ...	4.04 4.12	4.50 4.05	3.13 4.12	4.13 4.57
Average ...	9.02 9.04	9.12 9.23	9.61 9.24	9.25 9.33
Percentage { Fat ... other than Fat ...	13.06 13.16	13.62 13.28	12.74 13.36	13.38 13.90
Composition of the Milk. { Total Solids ...	0.60 0.66	0.68 0.65	0.40 0.60	0.525 0.64
Actual weight of Fat, in lbs. ...	13.2 13.2	13.6 13.0	8.0 12.0	10.5 12.8
Calculation of Points multiply by 20 ...	1.47 1.45	1.37 1.48	1.22 1.33	1.17 1.31
Actual weight of Solids other than Fat, in lbs. ...	5.88 5.80	5.48 5.92	4.88 5.32	4.68 5.24
Calculation of Points multiply by 4 ...	82.3 82.3	31.0 31.0	27.15 27.15	26.75 26.75
For weight of Milk (lbs.) ...	26.4 26.4	26.6 26.6	20.0 20.0	23.8 23.8
For weight of Fat (lbs. X 20) ...	11.68 11.68	11.4 11.4	10.2 10.2	9.92 9.92
For weight of Solids other than Fat (lbs. X 4) ...	70.4 70.4	69.0 69.0	57.4 57.4	60.0 60.0
Total Points for Milk ...	70.4 70.4	69.0 69.0	57.4 57.4	60.0 60.0
Deductions ...	70.4 70.4	69.0 69.0	57.4 57.4	60.0 60.0
TOTAL POINTS GAINED FOR MILK ...	0.3 0.3	0.7 0.7	— —	2.6 2.6
Points for time since Calving ...	70.7 70.7	69.7 69.7	57.4 57.4	62.6 62.6
TOTAL POINTS GAINED ...	1st Prize.	2nd Prize.	Reserve.	3rd Prize.
Remarks and Awards ...	...	...	...	...

CLASS 31.—DEXTER COWS (ENTERED IN OR ELIGIBLE FOR THE HERD BOOK).

Number Name ..	418 Barrow Buttercup 14th.	419 Just found of Hookstic.	420 Barbara
Born ...	April 16, 1923. 640	Mar. 15, 1919. 819	1915. 743
Live weight, in lbs. . .	Sept. 9. 39	July 28. 82	April 14. 187
Last Calved ...			
Days since Calving ...			
Weight of Milk, 1st day ...	Morn. Even. 13.7 13.8	Morn. Even. 20.0 21.7	Morn. Aft. Even. 11.7 12.8
Weight of Milk, 2nd day ...	14.0 13.7	22.0 19.4	11.8 11.4
Total	27.7 27.0	42.0 41.1	23.5 24.2
Average	13.85 13.5	21.8 20.55	11.75 12.1
Percentage (Fat ...)	4.33 4.53	2.46 2.90	3.74 4.02
Composition of ...	9.25 9.65	8.60 8.96	8.66 8.92
the Milk ...	13.58 14.18	11.06 11.86	12.40 13.54
Actual weight of Fat, in lbs. . .	0.60 0.61	0.525 0.60	0.44 0.595
Calculation of Points multiply by 20 ...	12.0 12.2	10.5 12.0	8.8 11.0
Actual weight of Solids other than Fat, in lbs.	1.28 1.30	1.84 1.85	1.02 1.04
Calculation of Points multiply by 4	5.12 5.20	7.36 7.40	4.08 4.16
Points—			
For weight of Milk (lbs.) . .	27.35	41.85	35.05
For weight of Fat (lbs. x 20) . .	24.2	22.5	29.5
For weight of Solids other than Fat (lbs. x 4) . .	10.32	14.76	12.12
Total Points for Milk	61.9	79.1	76.7
Deductions	—	20.0	—
TOTAL POINTS GAINED FOR MILK	61.9	59.1	76.7
Points for time since Calving	—	4.2	12.0
TOTAL POINTS GAINED	61.9	63.3	88.7
Remarks and Awards		Reserve, Nutt Cup.	1st Prize, Nutt Cup.

THE MILKING TRIALS FOR GOATS, 1926.

By THOS. W. PALMER.

The Milking Competitions for the goats were held under exactly the same conditions as at the 1925 Show, *i.e.*, "Star" or "Q Star" Milkers, and goats not eligible for these distinctions. The qualifications for "Star" and "Q Star" have been explained in previous issues of the Journal, so it is not necessary to recapitulate.

The entries numbered 27, comparing with 18 at the 1925 Show. Sixteen goats were entered in the Star Class, and 11 in the Non Star Class.

Class 38. "Star" or "Q Star" Milkers.—Only seven of the sixteen goats entered actually competed, but the competition between two of the animals was very keen. At the end of the first day's milking, "Atherstone Collette" Q*Q* had a total of 12·3 lbs., whilst "Didgemere Dream" Q** had yielded 12·2 lbs. The following day, the first named goat, though dropping ·6 lb. at the morning milking, pulled up on the evening, and equalled her previous day's yield. The other goat gained in the morning, and dropped ·1 in the evening, her total for the day being 12·3 lbs., thus "Atherstone Collette" Q*Q* had an average of 12·3 lbs. for milk, and "Didgemere Dream" Q** 12·25 lbs. The butter fat for these goats was 4·59 per cent., 2·78 per cent., 3·11 per cent. and 3·74 per cent. respectively, consequently "Atherstone Collette" Q*Q* lost 1 point. The final result was that "Atherstone Collette" Q*Q* received a total of 27·5, and "Didgemere Dream" Q** a total of 26·94, a difference of ·56. For some of the Trophies, inspection and milking points have to be taken into consideration. The Judge, in awarding the inspection points, gave "Didgemere Dream" Q** 5·50, and "Atherstone Collette" Q*Q* 5·00, so that "Atherstone Collette" Q*Q* won these Trophies by a margin of ·06! I do not remember such a keen or close competition at the Dairy Show. Miss Booth's "Atherstone Collette" Q*Q* not only won first prize in this class, but also the Baroness Burdett Coutts Cup, the Tremedda Selene Cup, the Dewar Perpetual Challenge Trophy, and the Dual Purpose Challenge Certificate. She also, with "Springfield Lealty," won the Dewar Cup. Mrs. Abbey's "Didgemere Dream" Q** won the second prize, and in addition, was reserve for all the above Cups, whilst she won the Challenge Cup for the Best Goat in the Show by inspection, also Challenge Certificate for this honour, and with two of her stable companions ("Didgemere Delilah" *Q*Q*Q* and "Didgemere Delia") won the Riding Challenge Cup for the Best Group of Three Goats exhibited by the same owner. The third prize-winner in this class was Miss Booth's "Springfield Unity" Q*Q*Q* (a daughter of the first prizewinner, "Atherstone Collette" Q*Q*), yield 9·4 lbs., total points 25·22.

In *Class 39*, six out of the eleven goats entered, competed. Mrs. Abbey secured all three prizes with "Didgemere Dogrose," yield 11·6 lbs., total points 24·84; "Didgemere Dulcette," yield 10·55 lbs., total points 24·55; and "Didgemere Delia," yield 8·3 lbs., total points 19·15, respectively.

The classes for Inspection were practically as last year, and I now classify the goats in the Milking Competition, as they are entered for inspection:—

Class 40. Toggenburg.—Two entries for inspection, but none for milking.

Class 41. British Toggenburg and British Saanen.—Nine entries, five of which were entered in the milking, but only two competed. These were Miss Booth's "Atherstone Collette" Q*Q*, which won first in *Class 38*, after being in milk 226 days, and the same exhibitor's "Springfield Unity" Q*Q*Q*, which won third in the same class, her lactation period being 193 days.

Class 42. British Alpine.—Eight entries, all the goats being entered in the milking classes, but only four competed, two in the Star Class, these being Mrs. Abbey's "Didgemere Delilah" *Q*Q*Q*, yield 9·6 lbs., lactation period 225 days, total points 24·74, and Mrs. Morcom's "Cornish Humbug" Q*, yield 8·95 lbs., lactation 128 days, total points 22·23. Both goats received High Commendation. The remaining two goats were in the Non Star Class—Mrs. Abbey's "Didgemere Dulcette," which won second prize, and the same exhibitor's "Didgemere Delia" being third, the lactation period being 197 and 170 days respectively.

Class 43. Saanen.—Four entries, one being also entered in the Milking Trials, but did not compete.

Class 44. Anglo-Nubian.—Four entries, two being entered in the Milking Trials, but did not compete.

Class 45. Any Other Variety.—Nine entries, all of whom were entered in the Milking Competitions, but only five competed. Of these, "Didgemere Dream" Q** has already been referred to. She was in milk for 188 days, and secured second prize in *Class 38*. Her twin sister, Mrs. Abbey's "Didgemere Deebee," was Reserve in *Class 38*, yield 10·1 lbs., total points 24·81, lactation 224 days. Mrs. Abbey's "Didgemere Dogrose" was first in *Class 39*, yield 11·6 lbs., total points 24·84, lactation period 132 days.

One goat was deficient in butter fat at one milking, this, the lowest percentage of butter fat being 2·78 per cent., whilst the highest percentage was 6·45 per cent. The following is the result of the analysis:—One sample under 3 per cent., seven samples between 3 per cent. and 4 per cent., ten samples between 4 per cent. and 5 per cent., seven samples between 5 per cent. and 6 per cent., and one sample over 6 per cent.

I append the usual tabulated statements.

TABLE I.

Class.	Description.	Number in Class.		Average Live Weight.	Average Yield of Milk.	Highest Yield.	Lowest Yield.	Average period of Lactation.	Average Fat.	Number of Animals below Standard for Fat.		Average points Gained.
		Entered.	Com- peting.							a.m.	p.m.	
40	Toggenburg	—	—	lbs. —	lbs. —	lbs. —	lbs. —	days —	—	—	—	—
41	British Toggenburg and British Saanen	5	2	154	10.85	12.3	9.4	209	4.50	—	1	26.36
42	British Alpine	8	4	163	9.35	10.55	8.3	180	4.21	—	—	22.66
43	Saanen	1	—	—	—	—	—	—	—	—	—	—
44	Anglo-Nubian	2	—	—	—	—	—	—	—	—	—	—
45	Any Other Variety	9	5	163	9.51	12.25	6.55	165	4.23	—	—	22.31

TABLE II.

Description of Class.	Year of Show.	Number of Animals Competing.	Average Live Weight of each Animal.	Average period of Lactation.	Average weight of Milk.		Average weight of Milk per day.	Highest Yield	Lowest Yield	Percentages.			
										Fat		Solids.	
					a.m.	p.m.				a.m.	p.m.	a.m.	p.m.
Star Milkers ...	1919	6	—	261	3.6	3.1	6.7	10.8	4.5	4.13	3.89	8.89	9.02
Star or Q Star Milkers	1920	7	130	219	3.9	3.2	7.1	9.0	4.9	4.61	4.72	9.02	9.17
"	1921	16	145	192	3.7	3.1	6.8	11.3	4.1	5.64	5.50	9.12	9.27
"	1922	14	144	190	4.4	3.6	7.0	12.6	5.6	4.60	4.52	9.07	9.19
"	1923	6	142	188	4.5	3.5	8.0	10.2	6.6	4.31	4.48	9.22	9.21
"	1924	12	149	200	4.5	3.3	7.8	11.25	4.65	4.81	5.25	8.78	8.98
"	1925	9	152	218	4.8	3.8	8.6	13.35	4.85	4.95	5.38	8.99	9.10
"	1926	7	168	189	5.08	4.88	9.96	12.3	7.15	4.38	4.63	8.53	8.61
Not eligible as Star Milkers	1919	15	—	220	2.1	2.0	4.1	6.8	0.7	5.82	5.91	9.74	9.78
"	1920	20	113	196	2.6	2.2	4.8	8.7	1.0	5.07	4.95	9.30	9.23
"	1921	14	123	145	3.3	2.8	6.1	9.4	2.9	5.10	4.96	8.75	8.88
"	1922	21	131	188	3.2	2.9	6.1	8.5	3.6	4.41	4.62	8.98	9.05
"	1923	5	127	147	3.9	2.9	6.8	8.5	5.1	3.96	4.78	8.93	8.99
"	1924	13	138	182	4.8	3.1	7.9	9.8	4.0	4.88	5.58	8.75	8.88
"	1925	7	131	180	3.4	2.8	6.2	8.25	3.85	4.86	5.38	9.08	8.95
"	1926	6	136	150	4.36	4.09	8.45	11.0	6.35	3.87	4.60	8.60	8.72

CLASS 38.—SHE GOATS (QUALIFIED AS "STAR OR 'Q' STAR MILKERS").

Number Name ...	456 Atherstone Collette.	457 Springfield Unity.	464 Cornish Humberg.	467 Dridgenere Delhai.	481 Cornish Magpie.	485 Dridgenere Deebce
Born ...	Feb 7, 1921	Feb. 13, 1924.	Mar. 10, 1923.	Mar. 10, 1922.	Feb. 25, 1922.	Feb. 17, 1923.
Live weight, in lbs. ...	161	147	146	178	146	191
Last Kidged ...	March 6	April 8.	June 12.	March 7.	May 27	March 8
Days since Kidling ...	226	193	128	225	141	224
Weight of Milk, 1st day	Morn. Even. 6.5 5.9	Morn. Even. 4.8 4.5	Morn. Even. 4.5 4.1	Morn. Even. 5.3 4.8	Morn. Even. 4.0 3.4	Morn. Even. 4.7 5.1
Weight of Milk, 2nd day	5.8 6.4	4.6 4.9	4.8 4.5	4.9 4.2	3.6 3.3	5.5 4.9
Total	12.3 12.3	9.4 9.4	9.3 8.6	10.2 9.0	7.6 6.7	10.2 10.0
Average	6.15 6.15	4.7 4.7	4.65 4.3	5.1 4.5	3.8 3.35	5.1 5.0
Percentage { Fat	4.59 2.78	5.41 5.23	4.31 5.28	4.34 5.05	4.57 6.45	4.36 3.91
Composition of { Solids other than Fat	8.21 8.40	8.75 8.89	9.31 9.42	8.28 8.33	8.85 9.13	8.42 8.33
the Milk. { Total Solids	12.80 11.18	14.16 14.12	13.62 14.70	12.62 13.38	13.42 15.58	12.78 12.24
Actual weight of Fat, in lbs.	0.28 0.17	0.255 0.246	0.20 0.227	0.22 0.228	0.17 0.216	0.22 0.196
Calculation of Points multiply by 20	5.60 3.40	5.10 4.92	4.0 4.54	4.4 4.56	3.4 4.32	4.4 3.92
Actual weight of Solids other than Fat, in lbs.	0.505 0.52	0.41 0.416	0.43 0.405	0.42 0.375	0.34 0.306	0.43 0.417
Calculation of Points multiply by 4	2.020 2.080	1.640 1.664	1.72 1.620	1.68 1.500	1.36 1.224	1.72 1.668
Points—	12.3	9.4	8.95	9.6	7.15	10.1
For weight of Milk (lbs.)	9.0	10.02	8.54	8.96	7.72	8.82
For weight of Fat (lbs. × 20)	4.1	3.304	3.34	3.18	2.584	3.888
For weight of Solids other than Fat (lbs. × 4)						
Total Points for Milk	25.4	22.72	20.83	21.74	17.45	21.81
Deductions	1.0	—	—	—	—	—
TOTAL POINTS GAINED FOR MILK	24.4	22.72	20.83	21.74	17.45	21.81
Points for time since Kidling.	3.1	2.5	1.4	3.0	1.7	3.0
TOTAL POINTS GAINED	27.5	25.22	22.23	24.74	19.15	24.81
Remarks and Awards	1st Prize Barons Burdett-Coutts Cup 'Tremeda Selene (Cup) Dewar Trophy.	3rd Prize.	Highly Commended.	Highly Commended.		Reserve and Highly Commended

CLASS 38.—SHE GOATS (QUALIFIED AS "STAR OR 'Q' STAR MILKERS")—Continued.

Number Name	486 Didgemere Dream.
Born	Feb. 17, 1923
Live weight, in lbs	202
Last Kidding	April 13,
Days since Kidding	188
Weight of Milk, 1st day	Morn. Even.
Weight of Milk, 2nd day	5.9 6.1
	6.3 6.2
Total	12.2 12.3
Average	6.1 6.15
Percentage { Fat	3.11 3.74
Composition of { Solids other than Fat	7.91 8.00
the Milk. { Total Solids	11.02 11.74
Actual weight of Fat, in lbs.	0.19 0.230
Calculation of Points multiply by 20	3.8 4.6
Actual weight of Solids other than Fat, in lbs	0.48 0.492
Calculation of Points multiply by 4	1.92 1.968
Points	12.25
For weight of Milk (lbs.)	18.4
For weight of Fat (lbs. $\times 20$)	3.888
For weight of Solids other than Fat (lbs. $\times 4$)	24.54
Total Points for Milk	24.54
Deductions	—
TOTAL POINTS GAINED FOR MILK	24.54
Points for time since Kidding	2.4
TOTAL POINTS GAINED	26.94
Remarks and Awards	2nd Prize Reserve for Baroness Emilett Coufs Cup Res for Tremella Seiene (cup and reserve for Dewar Trophy)

THE DAIRY SHOW BUTTER TESTS OF 1926.

By R. H. EVANS, B.Sc.

THE Prizes in the Butter Tests were awarded according to the following scale of points :—

One point for every ounce of butter : one point for every completed 10 days since calving (calculated to the first day of the Show), deducting the first 40 days. Maximum allowance for period of lactation, 12 points.

Fraction of ounces of butter, and incomplete periods of less than 10 days to be worked out in decimals, and added to the total points.

In the case of cows obtaining the same number of points, the prize to be awarded to the cow that has been longest time in milk.

A Certificate, giving the last day of calving (which must be before 9 a.m. on October 5th), must reach the Secretary by Saturday, October 9th.

No prize will be awarded to animals in the Butter Tests, which do not come up to the following standard :—

Breed.	Cows under 5 years.	Cows 5 years and over.
	Points.	Points.
Pedigree Shorthorns	30	34
Non-Pedigree Shorthorns	30	34
British Friesians	30	34
Lincolnshire Red Shorthorns ..	30	34
Jerseys	30	35
Guernseys	27	30
Ayrshires	27	30
Red Polls	30	34
South Devons	30	34
Kerries	26	29
Dexters	26	29
Devons	27	30
Welsh Blacks	27	30
Blue Albions	30	34

Certificates of Merit and Highly Commended Cards will be given to animals, other than Prize Winners, that reach the above standard.

The total number of entries and the actual number tested at the 1926 Show :—

Breed	Number entered	Number tested.
Pedigree Shorthorns	29	18
Non-Pedigree Shorthorns ..	9	5
Lincolnshire Red Shorthorns .	10	4
British Friesians	36	25
South Devons	8	1
Dairy South Devons	4	0
Devons	4	1
Red Polls	28	17
Blue Albions	6	4
Welsh Blacks	3	1
Ayrshires	38	26
Guernseys	21	14
Jerseys	39	25
Kerries	8	5
Dexters	3	3
	246	149

The number of Shorthorns tested this year shows an increase of two on the 1925 figure. Of the 27 animals competing in this class 12 yielded over two pounds of butter in the 24 hours. The average yield of butter in this class amounted to 1 lb. 15¼ ozs.—an increase of 3¼ ozs. on the 1925 results.

The premier award in the Shorthorn Class went to Mr. S. Reading's "Langford Damsel 21st"—a Lincoln Red Shorthorn—with a yield of 3 lbs. 10 ozs. of butter, this being the highest amount of butter obtained from an individual cow at the 1926 Dairy Show. Mr. A. B. Croxton's "Spot" was awarded the Second Prize with a yield of 2 lbs. 15¼ ozs. The Third Prize was won by Mr. R. Tustian's "Greattew Blossom," and the Fourth award by Messrs. Allen & Rogers' "Grand Duchess Oxford 30th," with yields of 2 lbs. 11½ ozs. and 2 lbs. 9¾ ozs. respectively.

The average yield of the four Lincolnshire Red Shorthorns tested amounted to 2 lbs. 8½ ozs.—a very creditable performance.

The number of Friesians tested—25—shows an increase of six over the 1925 figure. Three of this number yielded over 3 lbs. of butter each, and 13 others exceeded the 2 lb. mark. The highest yield registered in this class was 3 lbs. 8¼ ozs. by "Muntham Troublesome," the property of Messrs. W. G. White & Sons. The Second Prize went to "Lavenham Seabreeze"—a cow from Messrs. Strutt & Parker Farms, Ltd.—with a yield of 3 lbs. 4 ozs. The Third Prize was won by "Lavenham Wallen 2nd" from the same herd, with a yield of 3 lbs. 0¼ ozs. Mr. F. Sykes' "Kingswood Ceres Daisy"—with a yield of 2 lbs. 4¼ ozs., and 10·9 lactation points was awarded the Fourth Prize.

Only one South Devon put in an appearance, viz., "Milkmaid 9th," the property of Mr. W. Hunt, Tracey's Farm, Totnes. Her yield of butter amounted to 3 lbs. $2\frac{1}{2}$ ozs.

Mr. W. D. Chick's Devon cow, "Lovely 4th," yielded 2 lbs. $3\frac{3}{4}$ ozs. of butter, thus qualifying for the £3 prize.

In the Red Poll Class 17 cows competed—an increase of 11 on the 1925 figure. The average yield in this class amounted to 1 lb. 11 ozs.—practically the same as that at the previous Show. The premier honours went to Mr. T. H. Sochon's "Tendring Floss 34th"—her yield amounting to 2 lbs. 12 ozs. The Second Prize was won by Mr. J. G. Gray's "Seven Springs Bessy," with a yield of 1 lb. $14\frac{1}{2}$ ozs., having been 124 days in milk, thus gaining 8·4 points for lactation. The Third Prize was carried by Major J. A. Morrison's heifer, "Basildon Russett," with a yield of 1 lb. $12\frac{3}{4}$ ozs., having been 134 days in milk—her lactation points amounting to 9·4. Twelve of the 17 Red Polls tested failed to reach the standard points for the breed.

Of the four Blue Albions competing, Mr. A. Gillett's cow, "Brampton Jewel," was awarded the £3 prize, and Lt.-Col. W. E. Harrison's "Burton Clara," the £2 prize. The average yield of butter in this class amounted to 1 lb. $14\frac{1}{4}$ ozs.

Only one Welsh Black animal competed—Mr. J. B. Jones' "Bryncian Handy 6th"—and as the cow reached the standard for the breed, she was awarded the £3 prize.

There were five less Ayrshires tested at the 1926 Show than was the case in 1925. Of the 25 animals competing only five failed to reach the standard for the breed. Eighteen of the 25 yielded over 2 lbs. of butter in 24 hours, four of them yielding 3 lbs. or over.

Mr. J. Cochrane's cow, "Byreholm Buntie," won the premier award, with a yield of 3 lbs. $2\frac{3}{4}$ ozs. The Second Prize was won by Sir T. Fowell Buxton's cow "Catlinns Belinda," her yield amounting to 3 lbs. $2\frac{1}{2}$ ozs., while Mrs. Mackay's cow, "Bruchag Pearl," with a yield of 3 lbs. took the Third place. Mr. D. Wallace's "Auchenbrain Buntie 44th" also yielded 3 lbs. of butter, but owing to Mrs. Mackay's cow having been a longer time in milk, she was awarded the Third Prize. The average yield of butter in this class amounted to 2 lbs. 4 ozs.—a substantial increase on the 1925 figure of 1 lb. $14\frac{3}{4}$ ozs.

The number of Guernseys tested at the 1926 Show showed a decrease of four on the 1925 figure. Six of the 14 cows competing in this class failed to reach the standard for the breed. The average yield for the class amounted to 1 lb. 11 ozs., as compared with 1 lb. 8 ozs. at the 1925 Show.

The premier award in the Guernsey Class was awarded to the Misses Hargreaves' cow, "Lemon Gadfly," with a yield of 3 lbs. 4 $\frac{1}{4}$ ozs. of butter—quite a creditable performance. Mr. C. Norman's "Hadham Goldstream 11th" carried the Second Prize, her yield amounting to 2 lbs. 7 $\frac{1}{2}$ ozs. This cow received in addition eight points for lactation. The Third Prize went to Mr. W. Dunkel's "Downe Fleur of Vimiera," with a yield of 2 lbs. 3 $\frac{1}{4}$ ozs., and 7·4 lactation points.

In the Jersey Class 25 cows competed. Ten of this number yielded 2 lbs. or over, the average yield for the breed amounting to 1 lb. 14 ozs. The First Prize was awarded to Mr. H. Cecil Pelly's "Mastermaid" with a yield of 2 lbs. 10 ozs., after being 201 days in milk, thus gaining the maximum of 12 points for lactation. This cow also won the National Butter Cup. The Second Prize was awarded to Mr. R. W. Carson's "Mastermans Golden Cidonia," with a yield of 2 lbs. 11 $\frac{1}{4}$ ozs. butter, and 8·9 lactation points. Major A. W. Huntington's "Marriette's Violet" took the Third Prize, with a yield of 2 lbs. 7 ozs. of butter, and a maximum of 12 points for lactation. This cow was the Reserve for the National Butter Cup. Nine Jerseys competing failed to reach the standard for the breed.

Of the five Kerries tested, two failed to reach the standard points for the breed. Brig.-Gen. H. Palmer's "Coquet Gipsy" took the premier honours with a yield of 2 lbs. 1 oz., the Second Prize going to Capt. N. Zambra's and Mr. C. Williamson's "Milne Hattingly Haughty," with a yield of 1 lb. 14 $\frac{1}{2}$ ozs. Of the three Dexters tested, Mrs. H. P. May's cow, "Barbara," qualified for the £3 prize, her yield amounting to 1 lb. 6 $\frac{1}{4}$ ozs. with the maximum of 12 points for lactation.

Twice and Thrice Milking.—The choice of milking twice or three times daily was an innovation at the 1926 Show, and of the 149 cows competing in the Butter Tests, 74 were milked three times, and 75 twice. The question as to whether those cows which are milked three times a day hold any advantage over those which are milked only twice a day is an interesting one. In the absence of sufficient data, it is premature to express any opinion on the matter. In the Shorthorn Class the First and Third awards were won by cows which were milked only twice daily, while the Second and Fourth Prizes were awarded to thrice milkers.

In both the Ayrshire and Friesian Classes practically all the animals were milked thrice daily, and all the awards in these two classes automatically went to thrice milkers.

In the Red Poll Class the First and Third awards were won by thrice milkers, while the Second Prize went to an animal milked only twice daily.

In the Guernsey Class the First and Second Prize winners were the only two cows which were milked three times a day.

In the Jersey Class the First and Third Prizes were awarded to twice milkers, and the Second Prize to a thrice a day milker.

Of 28 prizes awarded in the Butter Tests Section, 16 were won by thrice milkers, the remaining 12 going to twice milkers.

Trophies and Cups—in the awarding of which the Butter Test points were taken into consideration:—

	No.	Res.
Individual Championship Challenge Trophy ...	150	134
The "Morrison" Challenge Trophy	101	346
The Spencer Challenge Cup	150	208
The National Butter Challenge Cup	350	359
The Shorthorn Butter Challenge Cup	101	50
The South Devon Challenge Cup	208	—
The Busk Perpetual Challenge Cup	225	—
The "Rowallan" Champion Cup	279	288
The "Stagenhoe" Challenge Cup	314	316
The "Nutt" Challenge Cup	420	419

My best thanks are due to my colleague, Mr. J. G. W. Stafford, and others who rendered me valuable assistance in the carrying out of the tests.

The following table shows the average results for all the breeds competing:—

Year.	Total No. of Cows.	Average weight of Animals.	Average No. of days in Milk.	Average weight of 24 hours Milk.	Average yield of Butter.	Average Butter Ratio.	Average No. of Points.
1926 ..	149	lbs. 1,160	64	lbs. 49.56	lb. ozs. 1 15½	26.69	34.68

TABLE I.—NUMBER OF CATTLE TESTED SINCE 1901.

Breed	1901 to 1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1919	1920	1921	1922	1923	1924	1925	1926
Shorthorns	64	14	17	22	26	26	19	22	26	30	26	20	20	24	30	63	39	34	18	15	23
Lincoln Reds	—	—	—	—	7	9	8	8	6	6	5	4	2	4	4	7	7	9	8	10	4
British Friesians ...	—	—	—	—	—	—	—	—	—	—	—	1	2	2	15	10	24	13	23	19	25
South Devons	2	2	3	5	—	—	4	7	2	4	2	6	3	—	—	5	5	3	—	2	1
Dairy South Devons ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Devons	—	—	—	—	—	—	—	—	—	—	—	—	—	5	2	6	7	5	3	8	1
Red Polls	13	4	11	12	11	3	4	4	1	1	—	—	1	11	12	17	23	13	17	6	17
Blue Albions	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	5	4
Welsh Blacks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	2	1
Ayrshires	2	1	3	2	—	4	—	1	—	4	—	—	—	—	—	2	20	16	15	31	26
Guernseys	14	3	3	2	2	2	2	2	1	2	6	5	7	16	14	19	15	10	16	18	14
Jerseys	75	12	18	13	13	16	22	18	18	7	18	9	10	22	21	24	27	25	32	24	25
Kerries	—	—	1	2	2	2	2	—	1	—	5	—	—	4	8	17	13	7	10	7	5
Dexters	3	2	—	—	—	3	—	—	—	—	—	—	—	6	5	3	3	8	2	3	3
Three-Times Milkers ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cross-Breds	21	6	8	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTALS	195	44	64	68	61	65	61	62	55	54	62	45	45	94	111	173	187	143	148	154	149

TABLE II.—NUMBER OF CATTLE OF THE VARIOUS BREEDS TESTED SINCE 1919, WITH THEIR AVERAGE PERIOD OF LACTATION, WEIGHT OF BUTTER, BUTTER RATIOS, AND POINTS.

Year.	No	Breed	Average No. of Days in Milk.	Average Weight of Butter.	Average Butter Ratio.	Average No of Points.
				lbs ozs	lbs.	
1919	24	Shorthorns .	34	1 13½	24.35	28.82
1920	30	"	34	1 11½	25.43	27.91
1921	63	"	29	1 8	30.25	24.20
1922	39	"	30	1 9	30.75	25.68
1923	34	"	57	1 14½	26.01	32.59
1924	18	"	34½	1 15	25.54	31.95
1925	15	"	40	1 11½	27.60	28.46
1926	23	"	43	1 13½	27.05	31.01
1919	4	Lincoln Reds .	58	1 13½	29.20	32.32
1920	4	"	59	1 5½	31.61	23.90
1921	7	"	64	1 13½	27.13	31.40
1922	7	"	31½	2 3½	24.82	35.89
1923	9	"	58	1 14½	26.37	32.73
1924	8	"	72½	1 12	27.43	32.11
1925	10	"	39	2 1½	27.27	34.27
1926	4	"	31	2 8½	22.57	40.66
1919	2	British Friesians .	28	1 10½	36.05	26.50
1920	15	"	50	1 13	29.59	31.17
1921	10	"	85	2 3	28.26	39.00
1922	24	"	57	1 10	35.32	26.86
1923	13	"	65	1 11½	32.22	31.76
1924	23	"	57¾	1 12	31.87	30.28
1925	19	"	45	1 15	32.36	32.50
1926	25	"	52	2 4½	28.97	38.13
1921	5	South Devons .	77	1 14½	22.06	34.42
1922	5	"	55	1 13	27.04	29.25
1923	3	"	36	2 3½	21.43	35.76
1925	2	"	111	2 8½	17.80	46.25
1926	1	"	88	3 2½	21.63	55.30
1925	1	Dairy South Devon .	124	2 4½	18.90	44.90
1919	5	Devons	60	1 9½	24.47	27.57
1920	2	"	25	1 15½	19.32	31.55
1921	6	"	48	1 15	21.92	32.60
1922	7	"	47½	1 10½	27.00	28.53
1923	5	"	41	1 14½	23.18	31.29
1924	3	"	40½	1 10½	24.88	26.50
1925	8	"	51	1 13½	24.40	30.78
1926	1	"	41	2 3½	21.85	35.85
1919	11	Red Polls	49	1 8½	30.03	26.02
1920	12	"	61	1 5½	31.46	23.66
1921	17	"	68	1 9½	24.73	27.52
1922	23	"	59	1 3½	34.09	21.75
1923	13	"	57	1 9½	26.67	28.00
1924	17	"	76½	1 7½	25.79	24.96
1925	6	"	63	1 11½	28.70	30.20
1926	17	"	80	1 11	27.13	29.47

TABLE II.—NUMBER OF CATTLE OF THE VARIOUS BREEDS TESTED SINCE 1919, WITH THEIR AVERAGE PERIOD OF LACTATION, WEIGHT OF BUTTER, BUTTER RATIOS, AND POINTS—*Continued.*

Year.	No.	Breed.	Average No. of Days in Milk.	Average Weight of Butter.	Average Butter Ratio	Average No of Points.
1924	4	Blue Albions	26½	1 15½	23.34	31.63
1925	5	"	35	2 0½	28.70	33.11
1926	4	"	50	1 14½	31.16	32.16
1922	4	Welsh Blacks	52	1 13½	24.23	30.45
1925	2	"	12	1 15½	21.60	31.62
1926	1	"	43	1 10½	26.72	27.05
1921	2	Ayrshires	39	2 5	20.15	37.20
1922	20	"	32½	1 10½	31.92	32.18
1923	16	"	29	1 14	23.88	30.35
1924	15	"	27	2 0½	22.65	32.40
1925	31	"	33	1 14½	26.60	31.60
1926	26	"	35	2 3½	24.66	36.61
1919	16	Guernseys	80	1 7½	19.76	27.16
1920	14	"	82	1 8½	21.22	28.53
1921	19	"	82	1 8½	20.45	27.47
1922	15	"	52	1 8½	21.95	27.31
1923	10	"	66	1 10½	22.89	30.13
1924	16	"	84	1 9	22.30	29.08
1925	18	"	100	1 8	22.10	29.41
1926	14	"	100	1 11	21.99	32.73
1919	22	Jerseys	111	1 11½	18.76	33.59
1920	21	"	106	1 11	18.85	32.74
1921	24	"	127	1 9½	18.56	32.29
1922	27	"	105	1 9½	19.82	31.99
1923	25	"	135	1 10	18.49	35.31
1924	32	"	132	1 15½	17.75	38.11
1925	24	"	135	1 13½	18.61	38.60
1926	25	"	126	1 14	19.39	37.61
1919	4	Kerries	32	1 2½	27.66	18.71
1920	8	"	63	1 7	22.81	25.77
1921	17	"	76	1 3½	23.16	22.43
1922	13	"	51	1 1½	29.33	19.34
1923	7	"	156	1 8½	24.60	29.74
1924	10	"	82	1 5	26.90	24.42
1925	7	"	68	1 15½	24.58	34.65
1926	5	"	39	1 10½	25.13	26.82
1919	6	Dexters	129	0 15½	23.48	23.84
1920	5	"	112	0 12½	21.78	19.21
1921	3	"	153	0 11	24.33	22.30
1922	3	"	143	0 13½	25.82	21.73
1923	8	"	150	0 13½	25.20	23.56
1924	2	"	78	1 7½	23.01	20.35
1925	3	"	118	1 5½	25.40	29.22
1926	3	"	102	1 4½	27.97	25.56

TABLE III.—AVERAGE YIELD OF BUTTER OF THE DIFFERENT BREEDS AT DIFFERENT PERIODS.

Year	Breed	No. of Cows.	Days in Milk, 50.	No. of Cows.	Days in Milk, 100.	No. of Cows.	Days in Milk, 135.	No. of Cows.	Days in Milk, 190.
			lbs. ozs.		lbs. ozs.		lbs. ozs.		lbs. ozs.
1919	Shorthorns	20	1 13 $\frac{1}{2}$	4	1 12 $\frac{1}{2}$	—	—	—	—
1920	"	25	1 12 $\frac{1}{2}$	5	1 6 $\frac{1}{2}$	—	—	—	—
1921	"	56	1 8 $\frac{1}{2}$	5	1 5 $\frac{1}{2}$	—	—	—	—
1922	"	33	1 9	5	1 4 $\frac{1}{2}$	1	0 1 $\frac{1}{2}$	—	—
1923	"	24	1 15 $\frac{1}{2}$	4	2 0 $\frac{1}{2}$	2	1 13	4	1 5
1924	"	16	2 0	1	1 3 $\frac{1}{2}$	—	—	1	1 11
1925	"	12	1 12 $\frac{1}{2}$	2	0 15 $\frac{1}{2}$	—	—	1	2 3 $\frac{1}{2}$
1926	"	17	1 15 $\frac{1}{2}$	5	1 9 $\frac{1}{2}$	—	—	1	1 3
1919	Lincoln Reds	2	1 14 $\frac{1}{2}$	1	2 3 $\frac{1}{2}$	1	1 6 $\frac{1}{2}$	—	—
1920	"	2	1 8 $\frac{1}{2}$	2	1 2 $\frac{1}{2}$	—	—	—	—
1921	"	4	1 14 $\frac{1}{2}$	1	1 10 $\frac{1}{2}$	2	1 11 $\frac{1}{2}$	—	—
1922	"	7	2 3 $\frac{3}{4}$	—	—	—	—	—	—
1923	"	5	1 12 $\frac{3}{4}$	2	1 10	—	—	2	1 8
1924	"	5	1 12 $\frac{3}{4}$	—	—	2	1 8 $\frac{1}{2}$	1	2 1
1925	"	8	2 2	2	1 14 $\frac{1}{2}$	—	—	—	—
1926	"	4	2 8 $\frac{1}{2}$	—	—	—	—	—	—
1919	British Friesians	2	1 10 $\frac{1}{2}$	—	—	—	—	—	—
1920	"	10	1 12 $\frac{1}{2}$	3	1 11 $\frac{1}{2}$	2	2 2 $\frac{1}{2}$	—	—
1921	"	3	2 3 $\frac{1}{2}$	2	1 14	3	2 6 $\frac{1}{2}$	2	2 1 $\frac{1}{2}$
1922	"	17	1 11 $\frac{1}{2}$	3	1 12 $\frac{1}{2}$	2	1 0 $\frac{1}{2}$	2	1 0 $\frac{1}{2}$
1923	"	6	1 7 $\frac{1}{2}$	4	2 0 $\frac{3}{4}$	1	2 4 $\frac{1}{2}$	2	1 13 $\frac{3}{4}$
1924	"	14	2 0	7	1 6 $\frac{1}{2}$	—	—	2	1 3 $\frac{3}{4}$
1925	"	13	1 14	5	2 0 $\frac{3}{4}$	1	2 5 $\frac{1}{2}$	—	—
1926	"	15	2 4 $\frac{1}{2}$	6	2 3 $\frac{1}{2}$	3	1 8 $\frac{1}{2}$	1	2 4 $\frac{1}{2}$
1921	South Devons	1	2 6	3	1 8 $\frac{1}{2}$	—	—	1	2 7
1922	"	2	2 2 $\frac{3}{4}$	3	1 10 $\frac{1}{2}$	—	—	—	—
1923	"	2	2 5 $\frac{1}{2}$	1	1 15	—	—	—	—
1925	"	1	3 2 $\frac{3}{4}$	—	—	—	—	1	1 13 $\frac{3}{4}$
1926	"	—	—	1	3 2 $\frac{1}{2}$	—	—	—	—
1925	Dairy S'th Devon	—	—	—	—	1	2 4 $\frac{1}{2}$	—	—
1919	Devons	2	1 15 $\frac{1}{2}$	2	1 6 $\frac{1}{2}$	1	1 3	—	—
1920	"	2	1 15 $\frac{1}{2}$	—	—	—	—	—	—
1921	"	5	2 0 $\frac{3}{4}$	—	—	—	—	1	1 6
1922	"	6	1 12 $\frac{1}{2}$	—	—	—	—	1	0 14 $\frac{1}{2}$
1923	"	3	1 13 $\frac{1}{2}$	2	1 15 $\frac{1}{2}$	—	—	—	—
1924	"	3	1 10 $\frac{1}{2}$	—	—	—	—	—	—
1925	"	7	1 15	—	—	—	—	—	—
1926	"	1	2 3 $\frac{3}{4}$	—	—	—	—	—	—
1919	Red Polls	6	1 10	5	1 6 $\frac{1}{2}$	—	—	—	—
1920	"	8	1 7 $\frac{1}{2}$	2	1 2	1	0 15 $\frac{1}{2}$	1	1 2
1921	"	7	1 12 $\frac{1}{2}$	6	1 6 $\frac{1}{2}$	2	1 9 $\frac{1}{2}$	2	1 7 $\frac{1}{2}$
1922	"	13	1 2 $\frac{1}{2}$	7	1 4	2	1 1 $\frac{1}{2}$	1	0 15
1923	"	7	1 8 $\frac{1}{2}$	4	1 6 $\frac{1}{2}$	1	2 4 $\frac{1}{2}$	1	2 2 $\frac{1}{2}$
1924	"	10	1 10	2	1 4	1	1 7 $\frac{1}{2}$	4	1 3 $\frac{1}{2}$
1925	"	6	1 14 $\frac{1}{2}$	1	1 10 $\frac{1}{2}$	—	—	1	1 10 $\frac{1}{2}$
1926	"	10	1 10 $\frac{1}{2}$	4	1 11 $\frac{1}{2}$	2	1 13 $\frac{1}{2}$	1	1 9

TABLE III.—AVERAGE YIELD OF BUTTER OF THE DIFFERENT BREEDS AT DIFFERENT PERIODS—*Continued.*

Year.	Breed.	No. of Cows.	Days in Milk, 50.	No. of Cows.	Days in Milk, 100.	No. of Cows.	Days in Milk, 135.	No. of Cows.	Days in Milk, 190.
			lbs. ozs.		lbs. ozs.		lbs. ozs.		lbs. ozs.
1924	Blue Albions	3	1 15 $\frac{1}{2}$	1	1 15	—	—	—	—
1925	"	4	2 3	1	1 8	—	—	—	—
1926	"	3	1 14 $\frac{3}{4}$	—	—	1	1 12 $\frac{1}{2}$	—	—
1922	Welsh Blacks	2	1 14 $\frac{3}{4}$	2	1 4 $\frac{3}{4}$	—	—	—	—
1925	"	2	1 15 $\frac{1}{2}$	—	—	—	—	—	—
1926	"	1	1 10 $\frac{3}{4}$	—	—	—	—	—	—
1921	Ayrshires	2	2 5	—	—	—	—	—	—
1922	"	16	1 7 $\frac{3}{4}$	3	1 2 $\frac{3}{4}$	—	—	1	1 2 $\frac{3}{4}$
1923	"	14	1 15	2	1 8 $\frac{1}{2}$	—	—	—	—
1924	"	15	2 0 $\frac{1}{2}$	—	—	—	—	—	—
1925	"	27	1 14 $\frac{1}{2}$	4	1 14 $\frac{1}{2}$	—	—	—	—
1926	"	21	2 3 $\frac{1}{2}$	4	2 4 $\frac{1}{2}$	1	2 7 $\frac{1}{2}$	—	—
1919	Guernseys	8	1 8 $\frac{1}{2}$	2	1 11	2	1 2 $\frac{1}{2}$	4	1 7 $\frac{1}{2}$
1920	"	4	1 10	5	1 11 $\frac{1}{2}$	3	1 2 $\frac{1}{2}$	1	1 2 $\frac{1}{2}$
1921	"	7	1 12	5	1 5	2	1 7 $\frac{1}{2}$	5	1 7
1922	"	9	1 8 $\frac{1}{2}$	3	1 12	1	1 5 $\frac{1}{2}$	2	1 7
1923	"	5	1 10 $\frac{1}{2}$	2	1 11 $\frac{1}{2}$	1	2 1 $\frac{1}{2}$	2	1 7 $\frac{3}{4}$
1924	"	8	1 8 $\frac{1}{2}$	2	1 9 $\frac{1}{2}$	3	1 6 $\frac{1}{2}$	3	1 10 $\frac{1}{2}$
1925	"	6	1 7 $\frac{1}{2}$	2	1 5 $\frac{1}{2}$	3	1 10	2	1 8 $\frac{1}{2}$
1926	"	2	2 6 $\frac{1}{2}$	5	1 5 $\frac{1}{2}$	4	1 13 $\frac{1}{2}$	2	1 8
1919	Jerseys	3	1 15 $\frac{1}{2}$	8	1 7 $\frac{1}{2}$	4	1 12 $\frac{1}{2}$	4	1 11 $\frac{1}{2}$
1920	"	6	1 13 $\frac{1}{2}$	4	1 11 $\frac{1}{2}$	3	1 14	6	1 5 $\frac{1}{2}$
1921	"	1	1 2 $\frac{1}{2}$	8	1 8 $\frac{1}{2}$	4	1 15	8	1 7 $\frac{1}{2}$
1922	"	4	1 12 $\frac{1}{2}$	8	1 11 $\frac{1}{2}$	7	1 8 $\frac{1}{2}$	8	1 6 $\frac{1}{2}$
1923	"	1	1 9 $\frac{1}{2}$	3	1 11 $\frac{1}{2}$	8	1 9 $\frac{1}{2}$	13	1 10 $\frac{1}{2}$
1924	"	2	1 10 $\frac{1}{2}$	6	1 11 $\frac{1}{2}$	7	1 15 $\frac{1}{2}$	17	1 14
1925	"	4	1 13 $\frac{1}{2}$	5	2 1 $\frac{1}{2}$	4	1 6	5	2 0 $\frac{1}{2}$
1926	"	2	2 0 $\frac{1}{2}$	7	1 11 $\frac{1}{2}$	7	1 12 $\frac{1}{2}$	7	1 15 $\frac{1}{2}$
1922	Kerries	7	1 2 $\frac{1}{2}$	5	1 1	—	—	1	0 12
1923	"	3	1 12	1	1 8	1	1 10 $\frac{1}{2}$	2	1 2 $\frac{3}{4}$
1924	"	2	1 10 $\frac{1}{2}$	6	1 2 $\frac{3}{4}$	1	1 8 $\frac{1}{2}$	1	1 4
1925	"	5	2 3	—	—	—	—	2	1 5 $\frac{1}{2}$
1926	"	4	1 12 $\frac{1}{2}$	1	1 2 $\frac{1}{2}$	—	—	—	—
1922	Dexters	1	0 12	2	0 13	—	—	—	—
1923	"	1	0 10	1	0 10	—	—	6	0 15
1924	"	1	0 13 $\frac{1}{2}$	—	—	1	1 2	—	—
1925	"	1	1 10 $\frac{1}{2}$	—	—	—	—	2	1 3 $\frac{1}{2}$
1926	"	1	1 2 $\frac{1}{2}$	1	1 3 $\frac{1}{2}$	—	—	1	1 6 $\frac{1}{2}$

TABLE IV.—COMPARISON OF CHURNINGS WITH ANALYSES.

SHORTHORNS.									
No in Catalogue.	Weight of Butter Churned		Total Fat by Analyses		No. in Catalogue.	Weight of Butter Churned.		Total Fat by Analyses.	
	lbs	ozs	lbs.	ozs.		lbs	ozs.	lbs.	ozs.
2	2	7 $\frac{3}{4}$	2	10 $\frac{3}{4}$	38	1	8 $\frac{1}{2}$	2	1
11	2	3 $\frac{1}{2}$	2	11	39	1	6	1	5 $\frac{1}{2}$
12	1	9 $\frac{1}{2}$	1	14 $\frac{1}{2}$	50	2	11 $\frac{1}{2}$	2	7 $\frac{1}{2}$
17	2	7 $\frac{1}{2}$	2	5	53	1	12 $\frac{3}{4}$	1	12
18	1	14 $\frac{1}{2}$	2	2	54	2	9 $\frac{1}{2}$	2	12
19	1	2 $\frac{1}{2}$	1	9	56	0	15 $\frac{1}{2}$	0	14 $\frac{1}{2}$
24	2	1 $\frac{1}{2}$	1	11	86	1	3 $\frac{1}{2}$	1	4 $\frac{1}{2}$
25	1	3	1	2	98	2	4 $\frac{1}{2}$	2	8
27	2	0	2	5	100	1	12	1	11
28	1	10	2	1 $\frac{3}{4}$	101	2	15 $\frac{1}{2}$	2	15 $\frac{1}{2}$
37	1	3 $\frac{1}{2}$	1	3 $\frac{3}{4}$	111	1	12 $\frac{1}{2}$	1	15 $\frac{1}{2}$
					112	1	14	1	9
					42	13	45		0 $\frac{1}{2}$

LINCOLN RED SHORTHORNS.									
125	2	4½	2	6	132	2	7	2	4
129	1	12	1	6½	134	3	10	3	6½
						10	1½	9	7

BRITISH FRIESIANS.									
147	2	10 $\frac{3}{4}$	2	12	172	2	10	2	12
148	2	10 $\frac{1}{2}$	2	15 $\frac{1}{2}$	174	1	12 $\frac{1}{2}$	1	14 $\frac{1}{2}$
149	2	8 $\frac{1}{2}$	2	15 $\frac{1}{2}$	177	2	6 $\frac{1}{2}$	2	11
150	3	4	3	7	180	2	12 $\frac{1}{2}$	3	0
151	3	0 $\frac{1}{2}$	3	2 $\frac{1}{2}$	182	2	1	2	5
154	2	14 $\frac{1}{2}$	2	11 $\frac{1}{2}$	185	2	14	3	1 $\frac{1}{2}$
155	2	1 $\frac{1}{2}$	2	4 $\frac{1}{2}$	196	1	9 $\frac{1}{2}$	1	10
157	2	4 $\frac{1}{2}$	2	6	197	1	0 $\frac{1}{2}$	1	1 $\frac{1}{2}$
159	2	3 $\frac{1}{2}$	1	15	198	1	10 $\frac{1}{2}$	1	11 $\frac{1}{2}$
160	3	8 $\frac{1}{2}$	3	11 $\frac{1}{2}$					
162	2	12 $\frac{1}{2}$	3	0 $\frac{1}{2}$					
171	1	15	2	6					
						50	10 $\frac{1}{2}$	53	15 $\frac{1}{2}$

SOUTH DEVON.							
208	3	2½	3	3½	—	—	—

DEVON.							
225	2	3 $\frac{1}{4}$	2	4 $\frac{1}{4}$	—	—	—

TABLE IV.—COMPARISON OF CHURNINGS WITH ANALYSES—*Continued.*

RED POLLS.

No. in Catalogue.	Weight of Butter Churned.		Total Fat by Analysis.		No. in Catalogue.	Weight of Butter Churned.		Total Fat by Analysis.	
	lbs.	ozs.	lbs.	ozs.		lbs.	ozs.	lbs.	ozs.
233	1	7 $\frac{1}{2}$	1	14 $\frac{1}{2}$	243	2	3 $\frac{1}{2}$	2	2 $\frac{3}{4}$
234	1	14 $\frac{1}{2}$	1	15	245	1	11 $\frac{3}{4}$	1	10 $\frac{1}{4}$
235	2	12	2	12	247	1	10 $\frac{1}{2}$	1	11 $\frac{1}{2}$
236	1	5 $\frac{1}{2}$	2	6 $\frac{1}{2}$	251	1	12 $\frac{1}{4}$	1	14 $\frac{1}{2}$
237	1	12 $\frac{1}{2}$	1	14 $\frac{1}{4}$	254	1	9	1	9 $\frac{1}{2}$
238	1	12 $\frac{1}{2}$	1	10 $\frac{1}{4}$	255	1	5 $\frac{1}{2}$	1	5
239	1	9	1	12 $\frac{1}{2}$	258	1	11 $\frac{1}{4}$	1	13
240	1	12 $\frac{1}{2}$	1	14 $\frac{1}{2}$	260	1	2 $\frac{1}{2}$	1	1 $\frac{1}{2}$
241	1	3	1	8					
						28	12	31	0 $\frac{1}{2}$

BLUE ALBIONS.

261	1	12 $\frac{1}{2}$	1	11	267	2	2	2	5 $\frac{1}{2}$
266	2	4 $\frac{1}{2}$	2	6	269	1	6	1	3 $\frac{1}{4}$
						7	8 $\frac{1}{2}$	7	10

WELSH BLACK.

273	1	10 $\frac{1}{2}$	1	10 $\frac{1}{2}$	—	—	—
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AYRSHIRES.

276	3	2 $\frac{1}{2}$	3	1 $\frac{1}{2}$	296	2	3 $\frac{1}{2}$	2	5 $\frac{1}{2}$
278	1	6 $\frac{1}{2}$	2	1 $\frac{1}{2}$	299	2	11	2	9
279	2	5 $\frac{1}{2}$	2	14 $\frac{1}{2}$	300	2	2 $\frac{1}{2}$	2	5 $\frac{1}{2}$
280	2	7 $\frac{1}{2}$	2	11 $\frac{1}{2}$	302	1	13 $\frac{1}{2}$	2	1 $\frac{1}{2}$
281	2	1 $\frac{1}{2}$	2	3	303	2	0 $\frac{1}{2}$	2	2 $\frac{1}{2}$
284	2	5	2	9 $\frac{1}{2}$	305	1	11 $\frac{1}{2}$	1	13 $\frac{1}{2}$
286	3	0	3	5	306	1	10 $\frac{1}{2}$	1	11
288	3	0	3	4	307	1	9 $\frac{1}{2}$	1	11
289	2	7 $\frac{1}{2}$	2	7 $\frac{1}{2}$	308	1	9	1	13
290	2	10	3	5 $\frac{1}{2}$	309	2	2 $\frac{1}{2}$	2	1 $\frac{1}{2}$
292	2	12 $\frac{1}{2}$	2	13	310	1	11	1	16
293	3	2 $\frac{1}{2}$	3	4 $\frac{1}{2}$	311	2	1 $\frac{1}{2}$	2	2
294	2	6 $\frac{1}{2}$	2	6	313	1	10 $\frac{1}{2}$	1	8
						58	5 $\frac{1}{2}$	62	8 $\frac{1}{2}$

GUERNSEYS.

314	3	4 $\frac{1}{2}$	3	8 $\frac{1}{2}$	323	1	1 $\frac{1}{2}$	1	8 $\frac{1}{2}$
316	2	7 $\frac{1}{2}$	2	7 $\frac{1}{2}$	329	1	10 $\frac{1}{2}$	1	15 $\frac{1}{2}$
317	1	3 $\frac{1}{2}$	1	1 $\frac{1}{2}$	331	1	8 $\frac{1}{2}$	1	7 $\frac{1}{2}$
318	2	3 $\frac{1}{2}$	2	1 $\frac{1}{2}$	332	1	8 $\frac{1}{2}$	1	7 $\frac{1}{2}$
321	1	8	1	8	333	1	8 $\frac{1}{2}$	1	10 $\frac{1}{2}$
323	1	4 $\frac{1}{2}$	1	5 $\frac{1}{2}$	334	1	2 $\frac{1}{2}$	1	1
327	1	11 $\frac{1}{2}$	1	10 $\frac{1}{2}$	340	1	6 $\frac{1}{2}$	1	7
						23	9	24	4 $\frac{1}{2}$

TABLE IV.—COMPARISON OF CHURNINGS WITH ANALYSIS—*Continued.*

JERSEYS

No. in Catalogue.	Weight of Butter Churned.		Total Fat by Analysis.		No. in Catalogue.	Weight of Butter Churned.		Total Fat by Analysis.	
	lbs.	ozs.	lbs.	ozs.		lbs.	ozs.	lbs.	ozs.
342	2	0 $\frac{3}{4}$	1	15	366	2	1 $\frac{3}{4}$	2	1
343	1	15	1	14 $\frac{1}{4}$	367	1	14	1	15 $\frac{1}{2}$
345	1	7	1	4	370	1	8 $\frac{1}{4}$	1	8
346	1	5 $\frac{1}{4}$	1	7 $\frac{1}{2}$	372	1	13 $\frac{1}{2}$	1	14 $\frac{1}{2}$
350	2	10	2	6 $\frac{1}{4}$	374	1	12	1	13
352	1	13 $\frac{3}{4}$	1	9 $\frac{1}{4}$	376	1	14 $\frac{3}{4}$	1	9
353	1	8 $\frac{1}{4}$	1	7	377	1	11 $\frac{1}{2}$	1	11 $\frac{1}{2}$
357	2	5 $\frac{1}{2}$	2	4 $\frac{3}{4}$	378	1	11 $\frac{1}{2}$	1	12
358	2	0 $\frac{1}{2}$	2	1	383	2	1 $\frac{1}{2}$	2	2
359	2	7	2	4 $\frac{1}{4}$	384	1	3 $\frac{1}{2}$	1	1 $\frac{1}{2}$
362	2	7	2	5	385	1	2 $\frac{1}{4}$	0	13 $\frac{1}{2}$
363	2	11 $\frac{1}{4}$	3	0	392	1	1 $\frac{1}{4}$	0	15 $\frac{1}{2}$
364	2	1 $\frac{1}{4}$	2	4					
						46	13 $\frac{1}{2}$	45	9 $\frac{1}{2}$

KERRIES.

404	2	1	2	2 $\frac{1}{2}$	416	1	0 $\frac{1}{2}$	1	0
406	1	14 $\frac{1}{2}$	2	1 $\frac{1}{4}$	417	1	2 $\frac{1}{2}$	1	2 $\frac{1}{2}$
407	2	0 $\frac{3}{4}$	2	0 $\frac{1}{4}$		8	3 $\frac{1}{2}$	8	7 $\frac{1}{2}$

DEXTERS

418	1	2 $\frac{3}{4}$	1	3 $\frac{1}{2}$	420	1	6 $\frac{1}{4}$	1	7 $\frac{1}{2}$
419	1	3 $\frac{1}{2}$	1	2 $\frac{1}{2}$					
						3	12 $\frac{1}{2}$	3	13 $\frac{1}{2}$

TABLE V.—AVERAGE DIFFERENCES BETWEEN CHURNINGS AND
CHEMICAL ANALYSES FROM 1919.

Year.	Breed.	Churn.	Analysis.
		Lbs. Butter.	Lbs. Fat.
1919	Shorthorns	43.86	42.40
1920	"	51.25	52.57
1921	"	94.84	112.69
1922	"	61.26	71.69
1923	"	65.15	71.94
1924	"	35.02	36.15
1925	"	25.75	28.81
1926	"	42.81	45.04
1919	Lincolnshire Red Shorthorns	7.47	7.15
1920	" " " "	5.37	5.81
1921	" " " "	12.77	13.01
1922	" " " "	15.62	14.96
1923	" " " "	16.90	19.72
1924	" " " "	14.06	12.98
1925	" " " "	20.89	21.62
1926	" " " "	10.11	9.44
1919	British Friesians	3.31	3.33
1920	"	27.10	29.06
1921	"	21.81	25.18
1922	"	38.37	44.50
1923	"	22.92	27.32
1924	"	40.37	46.74
1925	"	39.05	43.73
1926	"	50.65	53.97
1921	South Devons	9.46	10.50
1922	"	9.25	9.71
1923	"	6.62	7.13
1925	"	39.04	4.95
1926	"	3.16	3.20
1925	Dairy South Devons	2.28	2.31
1919	Devons	7.92	8.10
1920	"	3.94	3.59
1921	"	11.58	12.73
1922	"	11.69	12.72
1923	"	9.51	9.88
1924	"	4.97	5.76
1925	"	14.64	16.02
1926	"	2.23	2.28
1919	Red Polls	16.71	18.83
1920	"	15.98	18.89
1921	"	27.06	29.98
1922	"	28.33	35.61
1923	"	21.07	24.15
1924	"	25.12	28.36
1925	"	10.28	13.04
1926	"	28.75	31.03

TABLE V.—AVERAGE DIFFERENCES BETWEEN CHURNINGS AND
CHEMICAL ANALYSES FROM 1919—*Continued.*

Year.	Breed.	Churn.	Analyses.
		Lbs. Butter.	Lbs. Fat.
1924	Blue Albions . . .	7.76	8.92
1925	" ..	10.27	12.43
1922	Welsh Blacks . . .	7.30	6.70
1923	" ..	3.92	4.47
1926	" . . .	1.67	1.64
1921	Ayrshires . . .	4.62	4.69
1922	" . . .	27.85	31.52
1923	" . . .	30.19	32.95
1924	" . . .	30.52	35.15
1925	" . . .	59.47	65.86
1926	" . . .	58.34	62.52
1919	Guernseys . . .	23.72	23.66
1920	" . . .	21.23	21.62
1921	" . . .	28.94	28.87
1922	" . . .	22.46	23.14
1923	" . . .	16.80	16.78
1924	" . . .	25.98	25.60
1925	" . . .	27.11	28.51
1926	" . . .	23.56	24.28
1919	Jerseys . . .	37.44	35.18
1920	" . . .	25.06	24.55
1921	" . . .	29.75	28.50
1922	" . . .	43.22	42.05
1923	" . . .	41.38	41.40
1924	" . . .	59.18	58.87
1925	" . . .	44.45	43.92
1926	" . . .	46.83	45.58
1919	Kerries . . .	4.66	4.64
1920	" . . .	11.50	11.48
1921	" . . .	18.78	21.96
1922	" . . .	14.14	13.57
1923	" . . .	10.81	*9.75
1924	" . . .	13.11	13.75
1925	" . . .	13.66	14.00
1926	" . . .	8.21	8.47
1919	Dexters . . .	5.77	5.58
1920	" . . .	3.96	3.84
1921	" . . .	2.06	2.50
1922	" . . .	2.52	2.77
1923	" . . .	6.90	6.76
1924	" . . .	1.97	2.11
1925	" . . .	4.05	3.96
1926	" . . .	3.77	3.84

* Does not include the fat of No. 466.

BUTTER TESTS—DAIRY SHOWTHORNS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight Lbs.	Date of Birth	Date of Last Cull	No of Days in Milk	Milk Yield			Butter Yield Lbs. Ozs.	Milk to 1 lb. Butter	Colon and Quality of Butter		No. of Points for Butter	Total Number of Points for Lactation	Awards		
							Total					Colour	Quality					
							Morn	Aft.	Even.									
			Lbs.	Lbs.	Lbs.													
2	Capt. T. Allen-Stevens	Thurham Barrington 4th	1352	Dec. 15, 1920	Sept. 16	32	11 2	21 4	14 9	47 5	2	77 19 2	Pale	Fair	39 75	—	39 75	H.C.
11	J. Chivers & Sons, Ltd.	Histon Wild Queen	1458	Sept. 2, 1917	Sept. 20	19	31 4	—	31 3	62 7	2	37 28 2	Fair	Fair	35 75	—	35 75	H.C.
12	J. Pierpont	Longhills Belle 2nd	1554	Jan. 13, 1920	July 25	85	23 8	—	21 0	44 8	1	94 28 1	Fair	Good	25 25	4 5	29 75	
17	G. E. Fitz-Rugh	Rosette	1561	Feb. 17, 1919	Sept. 17	31	24 9	—	20 0	50 9	2	71 20 4	Fair	Fair	39 25	—	39 25	H.C.
18	E. Macintosh	Louie 7th	1553	April 20, 1919	Sept. 6	42	33 3	—	31 3	64 6	1	144 33 6	Good	Good	30 75	0 2	30 95	
19	E. Macintosh	Plas Power Fairy	1080	Oct. 4, 1920	Aug. 25	54	17 6	—	17 0	34 6	1	27 29 6	V. Good	Good	18 75	1 4	20 15	
24	J. G. Peel	Backwood	1330	June 5, 1920	Aug. 30	49	28 4	—	29 5	57 9	2	11 27 7	Good	V. Good	33 50	0 9	34 40	H.C.
25	F. H. Thornton	Seraphina Kingsthorpe Countess	1356	Oct. 9, 1922	May 24	147	14 2	—	12 0	26 2	1	3 22 2	V. Good	V. Good	19 00	10 7	29 70	
27	E. A. Smith	Longhills Ruby 4th	1193	Jan. 30, 1923	Sept. 23	25	18 3	16 1	15 0	49 4	2	0 24 7	Good	V. Good	32 00	—	32 00	H.C.
28	E. A. Smith	Darlinton 3rd Longhills Briar	1246	Sept. 26, 1922	Sept. 21	27	16 1	15 4	15 9	47 4	1	10 20 2	Pale	Fair	26 00	—	26 00	
37	J. Chivers & Sons, Ltd.	Histon Lady Blanche	1326	Oct. 5, 1922	Sept. 25	23	18 9	—	18 2	37 1	1	31 30 7	V. Good	Good	19 50	—	19 50	
38	J. Pierpont Morgan	Aldenham Kirkclevington	1389	July 4, 1922	Aug. 11	68	22 4	22 0	18 9	63 3	1	8 41 4	V. Good	Good	24 50	2 8	27 30	
39	J. Pierpont	Aldenham 2nd	1376	Nov. 5, 1922	Aug. 29	50	21 8	—	21 9	43 7	1	6 20 2	V. Good	V. Good	22 00	1 0	23 00	
50	R. Tustian	Greatw. Blossom	1394	Dec. 30, 1921	Sept. 22	26	29 2	—	33 3	62 5	2	11 23 0	Good	V. Good	43 50	—	43 50	3rd Prize
53	H. T. Holloway	Lavington Eclipse	1311	Oct. 16, 1921	Oct. 4	14	20 8	—	20 7	41 5	1	12 23 0	V. Good	V. Good	28 75	—	28 75	

BUTTER TESTS—SHORTHORNS—Continued.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight lbs	Date of Birth	Date of last Calf 1926.	No. of Days in Milk	Milk Yield				Butter Yield lbs ozs	Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total			Colour	Quality				
							lbs.	lbs.	lbs.	lbs.								
54	Allen & Rogers	Grand Duchess Oxford 30th	1315	July 10, 1922	Sept. 21	27	24 3	22 2	22 0	08 5	2	03 26-2	V. Good	Good	41 75	—	41 75	4th Prize
56	E. G. G. Frost	Thelveton White Lilac	999	Mar. 30, 1924	Sept. 29	19	15 3	—	14 8	30 1	15 3	31 0	Pale	Fair	15 50	—	15 50	
86	J. H. Ismay	Elsie Wilkeye ...	1244	Aug. 7, 1923	Sept. 2	40	10 3	12 1	11 9	34 3	1	34 28 6	V. Good	Good	19 25	6	19 85	
98	Allen & Rogers	Evensda ...	1315	1921	Sept. 24	24	21 7	21 4	21 0	64 1	2	43 27 9	Good	Good	36 75	—	36 75	H.C.
100	G. P. Hawkins	Harrison ...	1406	1919	Aug. 12	67	28 0	—	28 0	54 0	1	12 30 8	Good	Good	28 00	2 70	30 70	
101	A. B. Croxon	Spot ...	1549	Feb. 6, 1915	Sept. 21	27	22 0	22 8	18 9	63 7	2	16 21 4	V. Good	V. Good	47 25	—	47 25	2nd Prize
111	H. S. Horne	Sweet Pea ...	1378	Unknown	Sept. 23	25	19 2	19 4	19 3	57 9	1	12 32 7	Good	Good	28 55	—	28 55	
112	H. T. Holloway	Damsel ...	1324	1919	Aug. 3	76	26 3	—	25 7	52 0	1	14 27 8	V. Good	V. Good	30 00	3 6	33 60	
125	B. G. Bowser	Scothern Mystic	1458	May 26, 1918	Aug. 30	49	19 7	21 1	19 9	60 7	2	43 26 4	Good	V. Good	36 75	9	37 65	H.C.
129	J. Evens & Son...	Burton Vie 10th	1460	Aug. 29, 1922	Sept. 9	30	20 7	—	20 0	40 7	1	12 23 3	Good	Good	28 00	—	28 00	
132	J. Evens & Son	Burton Henpy 4th	1236	Feb. 21, 1920	Sept. 27	21	20 1	19 6	19 2	58 9	2	7 24 1	Good	Good	30 00	—	30 00	H.C.
134	S. Reading	Langford Damsel 21st	1347	Oct. 9, 1921	Oct. 1	17	34 8	—	33 6	68 4	3	10 18 9	Good	Good	53 00	—	53 00	1st Prize

BUTTER TESTS—SHORTHORNS—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE				
		Time		Temperature		
		Churning began	Churning finished	Duration of Churning	Dairy	Buttermilk, when churning finished
				Minutes	Degrees	Degrees
2	Thurnham Barrington 4th	8 50 a m.	9 20 a.m.	30	45	54
11	Histon Wild Queen	8 52 "	9 5 "	13	45	54
12	Longhills Belle 2nd	10 47 "	11 10 "	23	50	52
17	Rosette Prime 4th	10 45 "	11 8 "	23	50	54
18	Louie 7th	9 7 "	9 43 "	36	45	52
19	Plas Power Fairy	8 55 "	9 47 "	52	45	52
24	Backwood Seraphina	8 54 "	9 25 "	31	45	54
25	Kingsthorpe Countess Ruby 4th	9 11 "	10 15 "	64	45	54
27	Longhills Dadington 3rd	8 55 "	9 25 "	30	45	54
28	Longhills Briar	8 57 "	9 23 "	25	45	54
37	Histon Lady Blanche	8 57 "	9 50 "	53	45	54
38	Aldenham Kirklington 2nd	9 0 "	9 50 "	50	45	53
39	Aldenham Woodnut	9 3 "	9 52 "	49	45	53
50	Greatway Blossom	9 1 "	9 25 "	24	45	54
53	Lavington Belpe	9 17 "	10 10 "	53	45	52
54	Grand Duchess Oxford 30th	9 15 "	9 37 "	32	45	54
56	Malvecon White Lilac	9 10 "	9 37 "	27	45	53
80	Elsie Wildeye	9 6 "	9 28 "	55	45	53
98	Evenasia	9 13 "	9 50 "	37	45	54
100	Harrison	9 17 "	10 14 "	57	45	54
101	Spot	9 28 "	10 5 "	37	45	51
111	Sweet Pea	9 30 "	10 8 "	38	46	53
112	Damsel	9 25 "	10 15 "	40	46	53
125	Scottern Mystic	9 45 "	10 0 "	15	46	52
129	Burton Vic 19th	9 48 "	10 15 "	27	46	53
132	Burton Hempy 4th	9 42 "	10 3 "	21	46	52
134	Langford Damsel 21st	9 54 "	10 15 "	21	46	53

BUTTER TESTS—BRITISH FRIESIANS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight lbs.	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield lbs. ozs.	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of	Awards
							Morn.	Aft.	Even.	Total							
							lbs.	lbs.	lbs.	lbs.		Colour	Quality				
147	Lord Rayleigh	Terling Trux 4th	1380	Nov. 22, 1917	July 30	80	24 1	21 3	19 8	65 2	2 10½	24 3	Fair	42 75	4 00	46 75	H. C.
148	Lord Rayleigh	Terling Torch 13th	1408	Nov. 25, 1917	Sept. 23	25	21 8	23 4	20 0	65 2	2 10½	24 7	Fair	42 25	—	42 25	H. C.
149	Lord Rayleigh	Telling Warner 3rd	1554	Mar. 25, 1917	Sept. 14	34	23 8	25 4	25 2	74 4	2 8½	29 5	Fair	40 25	—	40 25	H. C.
150	Strutt & Parker Farms, Ltd.	Lavenham Seabreeze	1490	Dec. 8, 1920	Sept. 4	44	31 4	30 9	31 1	93 4	3 4	28 7	Fair	52 00	4	52 40	2nd Prize
151	Strutt & Parker Farms, Ltd.	Lavenham Wallen	1405	May 28, 1918	Sept. 15	33	26 7	25 2	24 4	76 3	3 0½	25 3	Pale	48 25	—	48 25	3rd Prize
152	A. Weightman	Pennybridge Pearl	1623	Dec. 10, 1920	Aug. 5	74	24 4	23 7	21 2	69 3	1 14½	36 7	Good	30 25	3 4	33 65	Disqualified
154	J. Martin ..	Netherhall Darkie	1347	Jan. 27, 1921	Sept. 19	29	26 0	27 2	26 7	79 9	2 14½	27 4	Fair	46 75	—	46 75	H. C.
155	Capt. J. Christie	Terling Breeze 8th	1587	Aug. 11, 1918	July 1	109	19 2	19 4	18 1	56 7	2 1½	26 9	Ex.	33 75	6 9	40 65	H. C.
157	F. Sykes ..	Kingswood Ceres Daisy	1342	Nov. 21, 1919	May 22	149	22 0	23 1	22 3	67 4	2 4½	26 7	Good	36 25	10 9	47 15	4th Prize
159	Gilbert & Woodfield	Seaton Empress	1328	Jan. 8, 1919	Sept. 27	21	23 0	24 8	22 5	70 3	2 3½	31 9	Fair	35 25	—	35 25	H. C.
160	W. G. White & Sons	Murtham Troublesome	1295	June 12, 1919	Sept. 16	32	20 2	23 0	24 3	67 5	3 8½	19 2	Good	56 26	—	56 26	1st Prize
162	W. Twentynan	Winchester Musk 1375	1375	Dec. 20, 1920	Aug. 27	52	25 5	26 8	28 0	80 3	2 12½	28 7	Good	44 75	1 2	45 95	H. C.
171	W. Turner ..	Hawthorne Agnes	1376	Oct. 1, 1917	Aug. 25	54	21 7	23 3	21 9	66 9	1 15	34 5	Fair	31 00	1 4	32 40	H. C.
172	C. W. H. Glossop	Lund (inn. 1922) Blanche 22nd	1451	April 16, 1921	Sept. 2	46	25 5	23 8	25 6	74 9	2 10	28 6	Good	42 00	6	42 60	H. C.
173	C. W. H. Glossop	Hensted Eleanor 1321	1321	Mar. 20, 1922	June 27	113	18 3	13 3	12 0	43 6	1 5½	32 7	Fair	21 25	7 3	28 55	Disqualified
174	C. W. H. Glossop	Lund Juliet ..	1498	June 30, 1922	Sept. 27	21	20 0	19 7	19 7	59 4	1 12½	33 3	Good	28 50	—	28 50	H. C.

BUTTER TESTS—BRITISH FRIESIANS—Continued.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight lbs.	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield lbs. ozs.	Ration, viz. lbs. Milk to lb. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards	
							Morn.	Aft.	Even.	Total			Colour	Quality					
					1926.		lbs.	lbs.	lbs.	lbs.									
177	E. Furness	...	1237	July 5, 1922	Aug. 11	68	26.5	25.4	25.4	77.3	2	6½	32.3	Pale	Fair	38.25	2.8	41.05	H.C.
180	F. Sykes	...	1372	Sept. 16, 1922	Sept. 25	23	24.8	25.5	24.8	75.1	2	12½	26.8	Fair	Good	44.75	—	44.75	H.C.
182	Capt. R. Corfield	Thorpe Moor Bloem	1223	Aug. 10, 1921	Sept. 22	26	17.4	20.8	20.0	58.2	2	1	28.2	V. Pale	Fair	33.00	—	33.00	
183	E. Hollingworth	Reddown Crocus 3rd	1442	Aug. 14, 1921	Sept. 13	35	28.3	27.5	28.2	84.0	1	11	49.7	Pale	Good	27.00	—	27.00	Disquali- fied
185	W. H. R. Gilbert	Iken Lady Graceful	1368	Jan. 27, 1922	Sept. 21	27	35.8	—	40.8	76.6	2	14	26.7	Pale	Good	46.00	—	46.00	H.C.
196	W. Twentymann	Winchester	1304	Sept. 25, 1923	Sept. 27	21	13.9	14.4	13.7	42.0	1	9½	26.6	Good	Good	25.25	—	25.25	
197	W. & R. Wallace	Attimore Miriam	1315	Sept. 4, 1923	Sept. 25	23	6.3	9.7	7.6	23.6	1	0½	22.9	V. Good	Good	16.50	—	16.50	
198	W. Alexander	Angela Eynsford Trix ...	1290	Jan. 13, 1924	Aug. 28	51	28.1	—	27.7	55.8	1	10½	33.3	V. Pale	Fair	26.75	1.1	27.85	
200	W. H. R. Gilbert	Iken Ceres Dairymaid	1494	Nov. 29, 1923	July 1	109	19.0	—	18.3	37.3	1	1½	34.2	Good	Good	17.50	6.9	24.40	Disquali- fied

BUTTER TESTS—BRITISH FRIESIANS—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time		Temperature			
		Churning began	Churning finished	Duration of Churning Minutes	Dairy Degrees	Cream and Churn Degrees	Buttermilk, when churning finished Degrees
147	Terling Trix 4th	9 50 a.m.	10 30 a.m.	40	46	52	53
148	Terling Torch 13th	10 0 "	10 28 "	28	46	52	53
149	Terling Warner 3rd	9 57 "	10 30 "	33	46	52	52
150	Lavenham Seabreeze	10 3 "	10 35 "	32	47	52	58
151	Lavenham Wallen	10 7 "	10 50 "	43	47	52	53
152	Pennybridge Pearl	10 8 "	10 53 "	45	47	52	53
153	Netherhall Darkie	10 10 "	10 35 "	25	47	52	54
154	Terling Breeze 8th	10 7 "	10 37 "	30	47	52	52
155	Kingswood Ceres Daisy	10 13 "	11 3 "	50	47	52	53
156	Seaton Empress...	10 18 "	10 52 "	34	47	52	54
157	Muntham Troublesome	10 20 "	10 55 "	35	47	52	53
158	Winchester Musk	10 18 "	10 40 "	22	47	52	58
159	Hawthorne Agnes	10 22 "	10 58 "	26	47	52	53
160	Land (Imp. 1922) Blanche 22nd	10 33 "	11 5 "	32	48	52	54
161	Hensted Eleanor	10 33 "	11 45 "	72	48	52	53
162	Land Juliet	10 36 "	11 18 "	42	48	52	53
163	Hanels Elegance	2 50 p.m.	3 30 p.m.	40	50	52	54
164	Mapleton Grace	10 45 a.m.	11 25 a.m.	40	50	52	54
165	Thorpe Moon Bloem	10 27 "	10 55 "	28	48	52	54
166	Reddown Crocus 3rd	10 38 "	11 22 "	42	48	52	53
167	Iken Lady Gracetul	10 50 "	11 27 "	37	48	52	54
168	Winchester Milium	10 53 "	11 22 "	29	50	52	52
169	Atchmore Angela	11 13 "	12 11 p.m.	56	49	52	53
170	Lynsford Trix	11 13 "	12 15 "	60	49	52	53
171	Iken Ceres Dairymaid	10 53 "	11 43 a.m.	48	49	52	53

BUTTER TESTS—RED POLLS—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE			
		Time		Temperature	
		Churning began	Churning finished	Dairy Degrees	Buttermilk, when churning finished Degrees
233	Salam Leezia	11 3 a.m.	11 35 a.m.	48	54
234	Seven Springs Bessie	11 22 "	12 0 "	49	54
235	Trenring Floss 34th	11 2 "	11 35 "	48	52
236	Hutton Apricot	11 23 "	11 46 "	49	53
237	Ashmore Viola	11 5 "	12 5 p.m.	48	54
238	Basilton Rosebud 2nd	11 10 "	11 45 a.m.	49	52
239	Knepp Prudence 4th	11 24 "	12 13 p.m.	49	54
240	Southdown Belle	11 30 "	12 0 a.m.	49	52
241	Hutton Belle 2nd	11 33 "	12 20 p.m.	49	53
242	Basilton Hawthorn	11 38 "	12 25 "	49	54
243	Longford Desperado	11 40 "	12 46 "	49	53
244	Longford Courage	11 42 "	12 15 "	49	54
245	Basilton Kissett	11 42 "	12 35 "	49	52
246	Lydiat Land	11 50 "	12 20 "	50	52
247	Gleaving Redstart	11 55 "	12 18 "	50	52
248	Basilton Greenhous	12 8 p.m.	12 30 "	50	52
249	Granitecourt's Tenderness		12 58 "	50	53

BUTTER TESTS—AYRSHIRES.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight lbs.	Date of Birth	Date of last Calf 1926.	No. of Days in Milk	Milk Yield				Butter Yield lbs. ozs.	Ratio, viz., lbs. Butter to lbs. Milk	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of	Awards
							Morn.	Aft.	Even.	Total			Colour	Quality				
							lbs.	lbs.	lbs.	lbs.								
276	Sir T. Fowell Buxton	Catlinus Belinda	1166	April 28, 1921	Sept. 26	22	24.8	25.4	23.2	73.4	3	23 23-3	Good	V. Good	50.50	—	50.50	2nd Prize
278	Sir T. Fowell Buxton	Corsehill	1056	Aug. 20, 1922	Sept. 9	39	17.1	16.7	16.0	49.8	1	63 34-8	Good	Good	22.75	—	22.75	
279	J. Johnstone	Glencathie 2nd Millanite	1298	April 3, 1911	Aug. 28	51	30.7	28.7	29.6	89.0	2	53 38-0	Pale	Fair	37.50	1.1	38.60	H.C.
280	J. Johnstone	Shieldhill Topsy Mayflower	1100	Feb. 10, 1916	Aug. 20	59	21.5	21.8	21.1	64.4	2	73 26-0	Fair	Good	39.50	1.9	41.40	H.C.
281	G. Dunlop	Craigaploch Meadow Sweet	1372	April 11, 1919	July 12	98	16.9	20.3	18.0	55.2	2	13 26-2	Pale	Fair	33.75	5.8	39.55	H.C.
284	O. D. Maxted	Rlag Rosie	1120	Feb. 5, 1921	Sept. 30	18	22.0	22.0	21.8	65.8	2	5 28-5	Good	Good	37.00	—	37.00	H.C.
286	D. Wallace	Auchenbrain Buntie 44th	1134	May 5, 1920	Oct. 2	16	20.5	20.6	20.4	61.5	3	0 20-5	Pale	Fair	48.00	—	37.00	H.C.
288	Mrs. M. Mackay	Bruchag Pearl	1350	Jan. —, 1917	Sept. 9	39	27.2	27.5	27.4	82.1	3	0 27-4	Good	Good	48.00	—	48.00	3rd Prize
289	A. W. Montgomery	Friendlesshead Farmer 7th	1150	April 5, 1922	June 24	116	20.0	17.0	20.4	57.4	2	73 23-2	Pale	Good	39.50	7.6	47.10	H.C.
290	Major C. R. Dudgeon	Caygen Holm Proud Lady 8th	1103	Feb. 3, 1921	Oct. 3	15	20.5	20.7	20.7	61.9	2	10 23-6	Good	Good	42.00	—	42.00	H.C.
292	J. Cochran	Maqueston Mayflower	1181	Oct. 28, 1920	Sept. 25	23	22.0	20.5	20.4	62.9	2	123 22-4	Pale	Good	44.75	—	44.75	H.C.
293	J. Cochran	Byreholm Buntie	1060	Dec. 10, 1920	Sept. 20	28	18.8	17.7	18.1	54.6	3	23 17-2	Good	Good	50.75	—	50.75	1st Prize
294	J. Cochran	Byreholm Diamond	1004	Feb. 14, 1923	Sept. 18	30	18.5	18.0	17.8	54.3	2	64 22-7	Good	Good	38.25	—	38.25	H.C.
296	J. & H. Gibson	Statth Gowan	1277	Feb. 25, 1919	Aug. 20	59	20.0	20.8	17.9	58.7	2	33 26-5	Good	Good	35.50	1.9	37.40	H.C.
299	M. Cochran	Ryemuir Clara	1047	Nov. 12, 1923	Oct. 5	13	16.1	16.1	16.0	48.2	2	11 17-9	Pale	Fair	43.00	—	43.00	H.C.
300	J. Cochran	Byreholm Eliza	944	Oct. 27, 1923	Sept. 19	29	17.4	16.6	16.5	50.5	2	23 23-2	Pale	Good	34.75	—	34.75	H.C.

BUTTER TESTS—AYRSHIRES—Continued.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight lbs.	Date of Birth	Date of last Calf 1926	No. of Days in Milk	Milk Yield				Butter Yield lbs. ozs.	Ration, viz. Butter Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total			Colour	Quality				
							lbs.	lbs.	lbs.	lbs.								
302	W. A. Thompson	Moorfield Sparkie	1042	Mar. 26, 1924	Sept. 23	25	17-0	17-8	18-1	52-9	1 13½	28-7	Fair	Good	29-50	—	29 50	H.C.
303	W. A. Thompson	Moorfield Vanify 2nd	1064	Jan. 4, 1924	Sept. 20	28	14-8	15-7	16-3	46-8	2 0½	22-8	Fair	Good	32-75	—	32 75	H.C.
305	F. H. Sanderson	Eschott Dublin ..	983	Jan. 3, 1924	Sept. 20	19	15-3	15-0	14-9	45-2	1 11½	26-0	Fair	Good	27-75	—	27 75	H.C.
306	A. W. Montgomery	Third part Lottie 3rd	1008	Mar. 6, 1924	Sept. 8	40	14-5	13-2	12-2	39-9	1 10½	23-8	Fair	Fair	26-75	—	26 75	H.C.
307	A. W. Montgomery	Butterhole Clip	969	Sept. 25, 1924	Sept. 16	32	13-9	14-1	14-6	42-6	1 9½	27-0	Fair	Fair	25-25	—	25 25	H.C.
308	A. W. Montgomery	West Gatehead	1107	Oct. 11, 1923	Oct. 3	15	11-3	12-0	12-6	35-9	1 9	23-0	Good	Good	25-00	—	25 00	H.C.
309	Major C. R. Dudgeon	Sheba Maude	1090	Sept. 26, 1923	Sept. 24	24	16-1	16-9	16-0	49-0	2 2½	22-9	Good	Fair	34-25	—	34 25	H.C.
310	Major C. R. Dudgeon	Cargen Holm	1060	Mar. 25, 1924	Sept. 17	31	12-9	13-6	12-7	39-2	1 11	23-2	Fair	Good	27-00	—	27 00	H.C.
311	Major C. R. Dudgeon	Cargen Holm Letty 7th	1053	Jan. 26, 1924	Oct. 4	14	15-3	15-1	15-0	45-4	2 1½	21-7	Fair	Good	33-50	—	33 50	H.C.
313	O. D. Maxted ..	White Stockings Little Kilgullan Gloria	1038	June 1, 1924	Sept. 14	31	17-3	17-3	17-1	51-7	1 10½	31-5	Fair	Good	26-25	—	26 25	H.C.

BUTTER TESTS—AYRSHIRES—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE				
		Time		Temperature		
		Churning began	Churning finished	Duration of Churning	Dairy	Buttermilk, when churning finished
		Minutes	Degrees	Degrees	Degrees	Degrees
276	Catkins Belinda	12 25 p.m.	12 55 p.m.	30	50	52
278	Conchill Glenethue 2nd	12 27 "	12 51 "	24	50	52
279	Alliantae Mayflower	12 27 "	1 13 "	46	50	52
280	Shieldhill Topsy	2 2 "	3 20 "	78	50	52
281	Craigaploch Meadow Sweet 3rd	2 2 "	3 55 "	113	50	52
284	Rigg Rosie	2 2 "	2 28 "	26	50	52
286	Auchenbrae Buntie 44th	2 2 "	2 30 "	28	50	52
288	Bruchag Pearl 7th	2 2 "	2 40 "	38	50	52
289	Friendlesshead Farmer 7th	2 2 "	3 16 "	74	50	52
290	Cargen Holm Proud Lady 8th	2 2 "	2 20 "	18	50	52
292	Maqueston Mayflower	2 2 "	2 55 "	53	50	52
293	Byreholm Buntie	2 2 "	2 17 "	15	50	52
294	Byreholm Diamond	2 8 "	2 35 "	27	50	52
296	Straith Gowan 12th	2 30 "	3 8 "	58	51	52
299	Ryemuir Clara	2 30 "	3 5 "	35	51	52
300	Byreholm Eliza	2 37 "	2 58 "	21	52	52
302	Moorfield Sparkle	2 2 "	2 27 "	25	52	52
303	Moorfield Vanity 2nd	2 12 "	2 40 "	28	51	52
305	Eshott Dahlin	2 35 "	3 10 "	35	52	52
306	Thirlcart Lottie 3rd	2 10 "	2 40 "	30	51	52
307	Butterhole Chip	2 41 "	3 35 "	54	52	52
308	West Glenhead Sheila	2 45 "	4 0 "	75	51	52
309	Cargen Holm Maudie	2 10 "	2 28 "	18	51	52
310	Cargen Holm Lady 7th	2 47 "	3 40 "	53	52	52
311	Cargen Holm White Stockings 11th	2 20 "	2 45 "	25	51	52
313	Kilgillan Gloria	2 45 "	3 20 "	35	52	52

BUTTER TESTS—GUERNSEYS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight lbs.	Date of Birth	Date of last Calf 1926.	No. of Days in Milk	Milk Yield				Butter Yield lbs. ozs.	Ratio to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Points	Awards
							Morn.	Aft.	Even.	Total			Colour	Quality				
							lbs.	lbs.	lbs.	lbs.								
314	The Misses Hargreaves	Lemon Gadfly ...	1178	Sept. 15, 1920	Oct. 4	14	18.3	18.3	18.8	55.4	3 4½	16.9	N. Good	Good	52.25	—	52.25	1st Prize
316	C. Norman ...	Hadham Goldstream 11th	1017	Sept. 6, 1919	June 20	120	15.5	16.5	16.4	48.4	2 7½	19.6	Ex.	Good	39.50	8 0	47.50	2nd Prize
317	E. E. Palmer ...	Mawgan Lady (Glen 2nd)	1050	May 1, 1918	June 15	125	15.3	—	15.9	31.2	1 3½	26.0	Pale	Good	19.50	8 5	28.00	
318	W. Dunkels ...	Downe Fleur of Vimera	1157	Mar. 20, 1918	June 26	114	27.0	—	22.9	49.9	2 3½	22.7	N. Good	Good	35.25	7 4	42.65	3rd Prize
321	A. Chester Beatty	Cheminante of Carteret	997	June 5, 1918	July 16	94	20.8	—	21.2	42.0	1 8	28.0	N. Good	Good	24.00	5 4	29.40	
323	Mrs. L. Corbett	Hockley Marigold	905	Dec. 7, 1918	May 15	156	13.8	—	15.9	29.7	1 4½	23.2	Good	Good	20.50	11 6	32.10	H.C.
327	E. E. Palmer ...	Jenny's Princess	798	Aug. 5, 1921	May 13	158	21.9	—	22.0	43.9	1 11½	25.2	Fair	Good	27.75	11.8	39.55	H.C.
328	A. Chester Beatty	Calehill Lizzie	1001	April 11, 1923	Aug. 20	59	15.6	—	15.8	31.4	1 1½	28.3	Good	Good	17.75	1.9	19.65	
329	Major J. H. Drake	Cunningham Muriel	1098	May 19, 1923	Aug. 19	60	18.3	—	19.4	37.7	1 10½	22.8	Fair	Good	26.50	2.0	28.50	H.C.
331	Sir Eric Hambro	Hayes Lola 6th	1026	Sept. 24, 1923	Feb. 21	239	17.3	—	15.7	33.0	1 8½	21.7	Fair	Good	24.25	12.0	36.25	H.C.
332	Sir Eric Hambro	Kitty's Butterfat	882	Jan. 31, 1924	July 5	105	15.9	—	17.0	32.9	1 8½	21.5	Fair	Fair	24.50	6.5	31.00	H.C.
333	Sir Eric Hambro	Downe Princess Mary 7th	891	June 23, 1924	Oct. 4	14	11.3	—	15.2	26.5	1 8½	17.4	Good	Good	24.25	—	24.25	
334	E. E. Palmer ...	Calehill Quante	847	Mar. 4, 1924	Aug. 9	70	12.7	—	13.7	26.4	1 2½	23.0	Pale	Fair	18.50	3.0	21.5	
340	G. H. Johnstone	Trewthlen Poetry	850	May 10, 1924	Aug. 8	71	12.8	—	14.6	27.4	1 6½	19.6	Good	Good	22.50	3.1	25.6	

BUTTER TESTS—GUERNSEYS—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE				
		Time		Temperature		
		Churning began	Churning finished	Duration of Churning Minutes	Dairy Degrees	Cream and Churn Degrees
314	Lennon Gadfly	3 0 p.m.	3 42 p.m.	42	52	54
316	Hadham Goldstream 11th	11 55 a.m.	12 30 "	35	50	52
317	Mawgan Lady Glen 2nd ..	12 23 p.m.	3 38 "	75	51	52
318	Downe Fleur of Vintara ..	11 27 a.m.	11 58 a.m.	31	49	53
321	Chemtante of Carteret ..	2 23 p.m.	2 57 p.m.	34	52	54
323	Hockley Marigold	3 0 "	3 35 "	35	52	54
327	Jonny's Princess	3 13 "	3 56 "	52	52	55
328	Calchill Lizzie	3 15 "	3 55 "	40	52	52
329	Cunningham Muriel	3 22 "	3 46 "	24	51	53
331	Hayes Lola 6th	3 25 "	4 15 "	50	51	52
332	Kitty's Butterfat	12 12 "	12 47 "	35	50	53
333	Downe Princess Mary 7th	3 35 "	4 3 "	28	51	52
334	Calchill Quandle... ..	3 35 "	4 30 "	55	51	53
340	Trewithen Poetry	3 10 "	4 50 "	70	52	53

BUTTER TESTS—JERSEYS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight lbs.	Date of Birth	Date of Last Calf	No. of Days in Milk	Milk Yield				Butter Yield lbs. ozs.	Ratio, viz., lbs. Milk to lbs. Butter		Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of	Award
							Morn.	Aft.	Even.	Total				Colour	Quality				
					1926.		lbs.	lbs.	lbs.	lbs.									
342	Hon. Alec P. Henderson	Windlesham	971	Feb. 6, 1920	Sept. 4	44	22 1	—	21.4	43.5	2 0½	21 2	2	Fair	Fair	32 75	4	33-15	
343	Sir G. Stanley White, Bart.	Ursanne Belle	886	Jan. 26, 1918	May 18	153	13.7	—	13.6	27.3	1 15	14.1	1	Fair	Fair	31.00	11.3	42-30	H.C.
345	G. Cross ...	Hamletta's	738	Mar. 10, 1918	June 8	192	20.8	—	18.8	39.6	1 7	27 5	1	Good	Good	23 00	9.2	32-20	
346	G. Cross ...	Robert's Queen	894	Oct. 15, 1920	Aug. 3	70	19 9	—	23 1	43.0	1 5½	32 3	1	Good	Good	21.25	3.6	24.85	
350	H. Cecil Pelly	Star 2nd Mastermaid	888	Jan. 19, 1920	Mar. 31	201	17.7	—	14 7	32 4	2 10	12.4	2	Ex.	V. Good	42 00	12.00	54 00	1st Prize
352	Mrs. Hayes Sadler	Fontaines Lilac	895	Feb. 12, 1920	May 13	158	17.2	—	18.4	35 6	1 13½	19.1	1	Good	Fair	29 75	11 80	41.55	H.C.
353	C. J. Phillips	Fair Margaret	804	Sept. 13, 1920	July 25	85	16 0	—	17.3	33.3	1 8½	21 9	1	V. Good	Good	24.25	4.50	28.75	
357	E. Birckett	Clairette	1111	Mar. 23, 1918	July 19	91	25 1	—	23.3	48 4	2 5½	20 7	2	Fair	Fair	37.50	5.10	42.60	H.C.
358	Mrs. Harry Briggs	Lily of the Valley	977	Oct. 26, 1917	Sept. 11	37	27.1	—	28 5	55 6	2 0½	27 4	2	Fair	Fair	32 50	—	32 50	
359	Major A. W. Huntington	Marquette's Violet	911	July 23, 1917	April 11	190	22.6	—	22.8	45 4	2 7	18 6	2	Good	Good	30.00	12.00	51.00	3rd Prize
362	R. W. Carson	Observer's Belle	923	June 11, 1921	Aug. 7	72	21.7	—	21.9	43 6	2 7	17 9	2	Good	Good	39 00	3 2	42.20	H.C.
363	R. W. Carson	Mastermans	1117	June 18, 1920	June 11	129	16.2	12.3	13 1	41.6	2 11½	15.3	2	V. Good	Good	43 25	8.9	52 15	2nd Prize
364	Col. L. Gisborne, C.M.G.	Golden Odonia	873	Mar. 1, 1922	April 21	180	16.7	—	17.4	34.1	2 1½	16.2	2	Good	Good	33.75	12.0	45.75	H.C.
366	Sir Harold Mackintosh	Lingen Sweet	843	July 17, 1923	June 28	117	10.8	12.0	10 5	33.3	2 1½	15 8	2	V. Good	V. Good	33.75	7.7	41.45	H.C.
367	C. J. Phillips	Stapleford Thyme	749	May 28, 1923	June 8	132	14.9	—	15.4	30.3	1 14	16 2	2	Fair	Fair	30.00	9.2	39.20	H.C.
370	Sir G. Stanley White, Bt.	Stella Mary Hollywood	813	April 3, 1922	July 5	105	17.5	—	17.4	34.9	1 8½	23 0	1	Good	Good	24.25	6.5	30.75	

BUTTER TESTS—JERSEYS—Continued.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight lbs.	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield lbs. ozs.	Ratio to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Award
							Morn.	Aft.	Even.	Total			Colour	Quality				
					1926.		lbs.	lbs.	lbs.	lbs.								
372	R. G. W. Berkeley	So Gay	913	Jan. 10, 1922	April 28 1926.	173	16 7	—	17 5	34 2	1 13 1/2	18 6	Fair	Good	29 50	12 0	41 50	H.C.
374	Grosvenor Berry	Postmistress	1013	Jan. 22, 1922	Jan. 7 284		20 8	—	19 0	39 8	1 12	22 7	Fair	Good	28 00	12 0	40 0	H.C.
376	Mrs. Harry Briggs	Tempete	766	Oct. 23, 1921	May 28 143		21 6	—	19 7	41 3	1 14 3/4	21 4	Fair	Good	30 75	10 3	41 05	H.C.
377	Major A. W. Huntington	Treasure 3rd	855	Mar. 6, 1923	April 24 177		18 8	—	19 9	38 7	1 11 1/2	22 5	V. Good	Good	27 50	12 0	39 50	H.C.
378	R. W. Carson	Valse Brune 2nd	903	April 4, 1923	June 7 133		17 6	—	19 1	36 7	1 11 3/4	21 1	Fair	Fair	27 75	9 3	37 05	H.C.
383	Sir Harold Mackintosh	Countess Pauline	694	June 11, 1924	Aug. 6 73		11 0	14 8	12 2	38 0	2 1 1/2	18 2	V. Good	V. Good	33 50	3 3	36 80	H.C.
384	Sir G. Stanley White	Prudence of Hollywood	816	Aug. 16, 1923	June 30 110		11 5	—	13 7	25 2	1 3 1/4	21 0	Good	Good	19 25	7 0	26 25	
385	Hon. A. P. Henderson	Nancy	710	Jan. 29, 1924	Aug. 4 75		10 4	—	10 3	20 7	1 2 3/4	17 7	Good	Good	18 75	3 5	22 25	
392	Miss E. A. Stange	Loseley Dazzle	693	June 30, 1924	July 28 82		11 2	—	10 2	21 4	1 1 1/2	19 8	Fair	Fair	17 25	4 5	21 45	

BUTTER TESTS—JERSEYS—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE				Temperature		Buttermilk, when churning finished
		Time		Duration of Churning	Dairy	Cream and Churn	Degrees	
		Churning began	Churning finished					
342	Windlesham Windflower ...	3 40 p.m.	4 10 p.m.	30	52	52	53	
343	Ursanne Belle ...	3 45 "	4 30 "	45	52	52	53	
345	Hamletta's Queen ...	3 47 "	4 20 "	33	52	52	54	
346	Roberta's Star 2nd ...	3 53 "	4 55 "	62	51	52	54	
350	Mastermaid ...	3 54 "	4 41 "	47	51	52	53	
352	Pontaines Lilac ...	4 0 "	4 53 "	53	51	52	52	
353	Fair Margaret 4th ...	4 0 "	5 30 "	87	51	52	52	
357	Clarette ...	4 7 "	5 25 "	32	51	52	53	
358	Lily of the Valley ...	4 57 "	5 50 "	53	50	52	53	
359	Mariette's Violet ...	5 0 "	6 10 "	70	50	52	53	
362	Observer's Belle ...	5 12 "	6 10 "	58	50	52	53	
363	Mastermans Golden Cidonia ...	5 14 "	6 8 "	54	50	52	53	
364	Cids Raleigh Spectre ...	5 10 "	5 55 "	45	50	52	53	
366	Lingan Sweet Thyme ...	5 10 "	6 20 "	70	50	52	53	
367	Stanford Stella Mary ...	5 15 "	6 34 "	79	50	52	52	
370	Hollyhock of Hollywood ...	5 20 "	6 5 "	45	50	52	52	
372	So Gay ...	5 37 "	6 5 "	55	52	52	53	
374	Postmistress ...	5 38 "	4 13 "	63	52	52	53	
376	Templete ...	5 8 "	4 13 "	37	52	52	54	
377	Treasure 3rd ...	5 25 "	4 45 "	52	52	52	53	
378	Valse Bruin 2nd ...	5 5 "	4 17 "	78	52	52	53	
383	Countess Pauline ...	5 57 "	4 25 "	28	52	52	53	
384	Prudence of Hollywood ...	4 8 "	5 18 "	70	51	52	52	
385	Nancy ...	4 12 "	5 40 "	88	51	52	54	
392	Loseley Dazzle ...	4 15 "	4 45 "	30	51	52	52	

BUTTER TESTS—OTHER BREEDS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight lbs	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield lbs ozs	Ratio, viz. lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total			Colour	Quality				
							lbs.	lbs.	lbs.	lbs.								
SOUTH DEVON																		
208	W. Hunt ...	Milkmaid 9th ...	1566	Sept. 2, 1916	July 22	88	25.1	23.4	10.0	67.5	3	23 21.2	Ex.	Ex.	50.50	4.8	55.3	£3 Prize
DEVON.																		
225	W. D. Cholek ..	Lovely 4th ...	1253	May 5, 1918	Sept. 7	41	23.5	—	24.8	48.3	2	32 21.6	V. Good	Good	35.75	1	35.85	£3 Prize
BLUE ALBION																		
261	Lt.-Col. W. E. Harrison	Bramshall Margaret	1442	Unknown	June 21	119	25.8	—	29.1	54.9	1	12 31.0	Fair	Good	28.25	7.9	36.15	£2 Prize
266	A. Gillett ...	Brampton Jewel	1180	Unknown	Oct. 1	17	27.1	—	25.1	52.2	2	4 22.9	V. Pale	Fair	36.50	—	36.50	£3 Prize
267	J. W. Towler ...	Megdale Emma	1332	Unknown	Sept. 8	40	24.6	—	24.9	49.5	2	2 23.3	Good	Fair	34.00	—	34.00	H.C.
269	A. Gillett ...	Ridgevardine May	1314	May 14, 1924	Sept. 23	25	16.3	—	16.6	32.0	1	6 24.0	Good	Fair	22.00	—	22.00	
WELSH BLACK																		
275	J. B. Jones ...	Bryncian Handy 6th	1124	Dec. 4, 1921	Sept. 5	43	20.5	—	23.7	44.2	1	10 26.3	Ex.	V. Good	26.75	3	27.05	£3 Prize

BUTTER TESTS—OTHER BREEDS—Continued.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight lbs.	Date of Birth	Date of last Calf 1926.	No. of Days in Milk	Milk Yield				Butter Yield lbs. ozs.	Ratio, viz., lbs. Butter Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn. lbs.	Aft. lbs.	Even. lbs.	Total lbs.			Colour	Quality				
KERRY																		
404	Brig.-Gen. H. Palmer	Coquet Gipsy ...	1003	May 12, 1917	Sept. 13	35	27-8	—	29 6	57-4	2 1	27 8	Good	Good	33-00	—	33-00	£3 Prize
406	Capt. N. Zambra & C. Williamson- Milne	Hattingley Haughty	1188	Mar. 30, 1920	Sept. 13	35	25-6	—	24-2	49-8	1 14½	26 4	Good	Good	30 50	—	30 50	H.C.
407	Capt. N. Zambra & C. Williamson- Milne	Hattingley High Kick	978	June —, 1919	Sept. 25	23	22-1	—	23 2	45-3	2 0½	22-1	Pale	Fair	32 75	—	32 75	£2 Prize
416	B. W. A. Watney	Chaldon Countess 1st	993	Sept. 1, 1923	Sept. 14	34	12 5	—	14-1	26 6	1 0½	25-3	Fair	Fair	16-75	—	16-75	
417	B. W. A. Watney	Moonstone of Warren	843	Jan. 15, 1924	Aug. 13	66	12 7	—	14-3	27-0	1 2½	23-5	Good	N. Good	18 50	2 6	21-1	
DEXTER																		
418	Mrs. M. H. Neville	Barrow Buttercup 14th	640	April 16, 1923	Sept. 9	39	13-7	—	13-3	27-0	1 2½	23-1	Good	Good	18 75	—	18-75	
419	T. A. Stephens	Just Found of Hooksville	819	Mar. 15, 1919	July 28	82	20 6	—	21-7	42 3	1 3½	35 0	Good	Good	19 50	4 2	23-70	
420	Mrs. H. P. May	Barbara ...	743	1915	April 14	187	11-7	12-8	11-1	35 6	1 6½	25 6	Fair	Good	22-25	12 0	34-25	£3 Prize

BUTTER TESTS—OTHER BREEDS—Continued.

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE				
		Time		Temperature		
		Churning began	Churning finished	Duration of Churning	Dairy Degrees	Cream and Churn Degrees
				Minutes		Buttermilk, when churning finished Degrees
208	Milkmaid 9th	11 19 a.m.	12 0 noon	41	49	54
225	Lovely 4th	11 0 "	11 30 a.m.	30	48	54
261	Bramshall Margaret	12 12 p.m.	12 50 p.m.	48	60	53
266	Brampton Jewel	12 12 "	12 40 "	28	50	54
267	Megdale Emma	12 18 "	12 50 "	32	50	52
269	Ridgewarden May	12 18 "	12 55 "	37	50	53
275	Bryncian Handy 6th	12 30 "	12 47 "	17	50	54
404	Coquet Gipsy	5 23 "	6 0 "	37	50	52
406	Hattingley Haughty	5 25 "	6 5 "	40	50	53
407	Hattingley High Kick	5 25 "	6 21 "	56	50	54
410	Chaldon Courtess 1st	5 25 "	6 55 "	31	50	52
417	Moonstone of Warren	5 27 "	6 20 "	53	50	55
418	Barrow Buttercup 14th	4 22 "	5 50 "	98	50	52
419	Just Found of Hookstale	5 25 "	6 32 "	57	50	53
420	Barbara	5 50 "	6 20 "	30	50	52

NEW INVENTIONS, DAIRY SHOW, 1926.

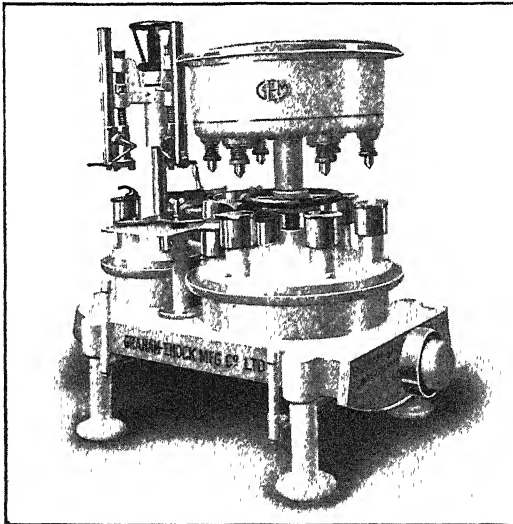
By J. GILLARD STAPLETON.

THE number of entries in Classes 141 to 144, inclusive, this year at the Dairy Show embracing all those entries under the comprehensive title of Inventions, &c., were very numerous, numbering 76 in all. The increase in the entries in these classes of recent years is evidence of the vitality of the Dairy Industry at the present time, and the gradual improvement and development of methods for giving better service both with regard to production and distribution.

The Judges were considerably handicapped owing to the large number of entries and the short time available to examine them individually and in detail, and it is very desirable that entries for future shows should be required by the Council to be made much earlier and that the Judges be permitted to inspect entries, where they desire to do so, under working conditions before the opening of the Show.

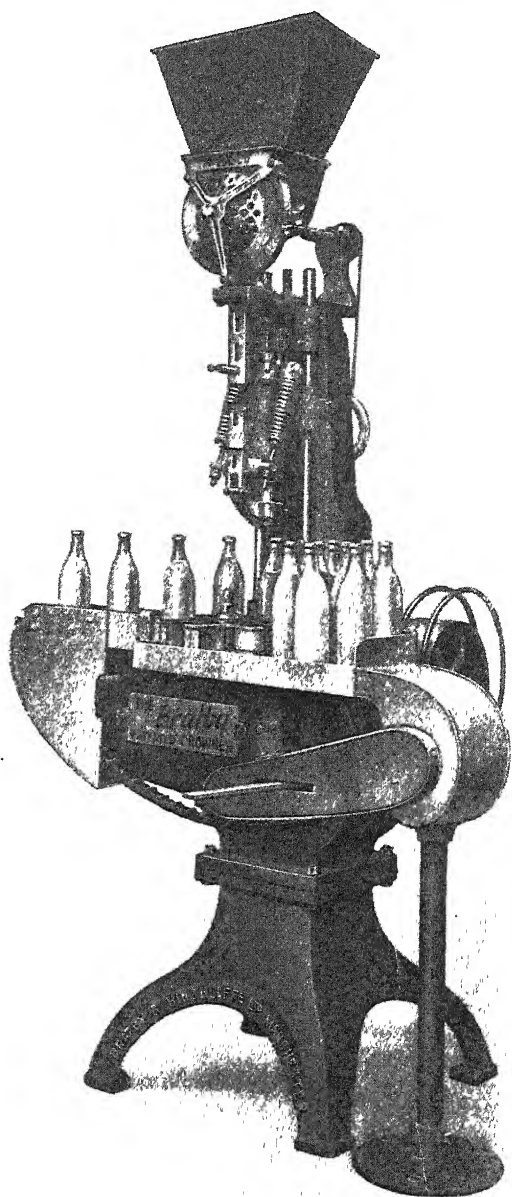
There are a few points in connection with some of the entries to which it is desirable to call attention.

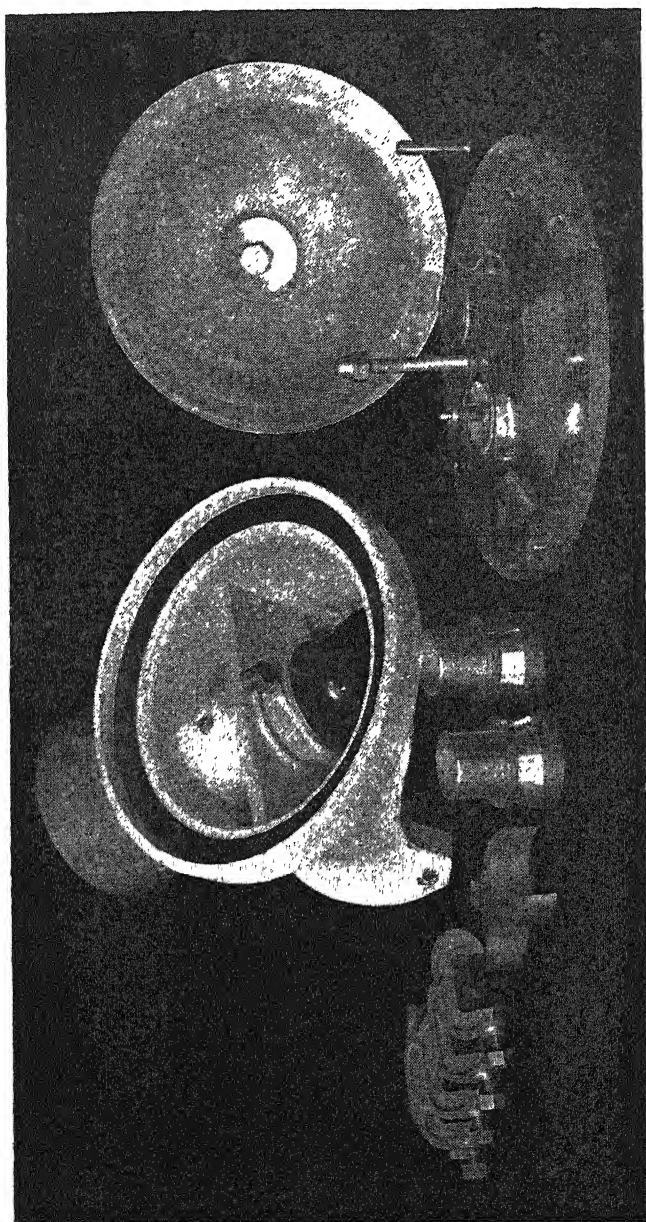
Messrs. Bratby & Hinchliffe, Ltd., exhibited an improved Crown Corking Machine which was exceptionally rugged in construction and provided that in the event of a bottle falling over when passing on to the platform of the crowning head, the machine automatically stopped and thus prevented the breaking of the bottle and following bottles.



"G. E. M." ROTARY FILLER AND CAPPER.

Messrs. Graham Enock Manufacturing Co. again exhibited their very efficient and well-constructed "G.E.M." Filling Machine with

**CROWN CORKING MACHINE.**

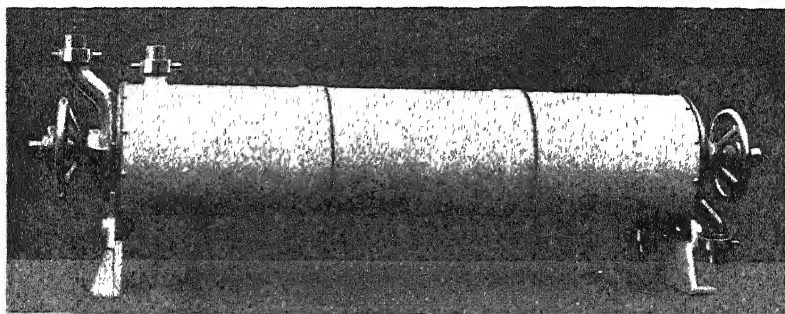


SANITARY GLANDLESS PUMP.

an improved method of lubrication which is entirely automatic and continuous.

There were two exhibits by Mr. R. L. Munday which could certainly be classed as new inventions. The first of these was a Sanitary Glandless Pump, which was of entirely new and ingenious design, capable of raising the milk to any desired height. The pump was constructed of two metal plates of about 16 inches diameter in close proximity to one another, and in the top plate were two metal valves for allowing the milk to pass in between the plates and out again. The lower plate was made to slightly pulsate by means of an eccentric rocking arm working against its underside, and this slight movement drew the milk through one valve in between the plates and again pressed it out through the other valve.

The other exhibit entered by Mr. Munday was a Heat Regenerator for raising or lowering the temperature of milk by means of water or brine thermostatically controlled. The principle of this apparatus was entirely new, and provided that the milk should be forced under pressure in a thin ribbon at high speed between a metal cylinder and a metal shield in very close proximity to the cylinder, and the heating or cooling medium was in contact with the metal on both sides of the thin ribbon of milk, thus giving positive heating and cooling at fixed temperature of the whole of the milk and in the absence of air, which is most important. Unfortunately there was no opportunity of testing the true efficiency of this machine.



HEAT REGENERATOR.

Messrs. G. Sutherland Thompson exhibited a most efficient Butter Moulding and Wrapping Machine, but owing to the very large number of working parts it is impossible to give a detailed description of its construction and working in these short notes.

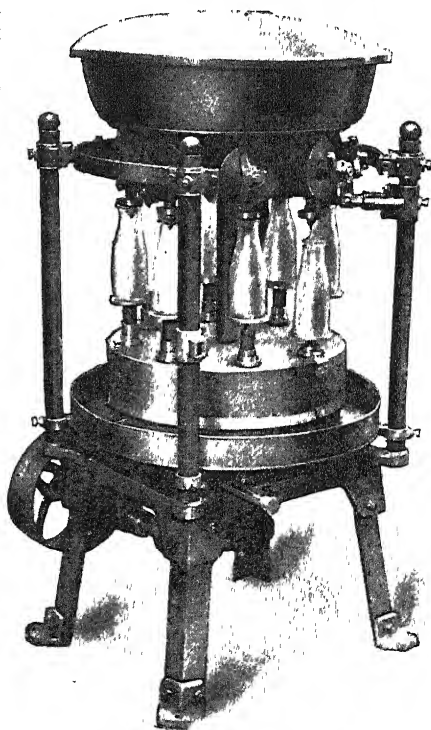
The Wallis Crown Cork Co. were awarded a Silver Medal for their



WALLIS SAFETY CAP SEAL.

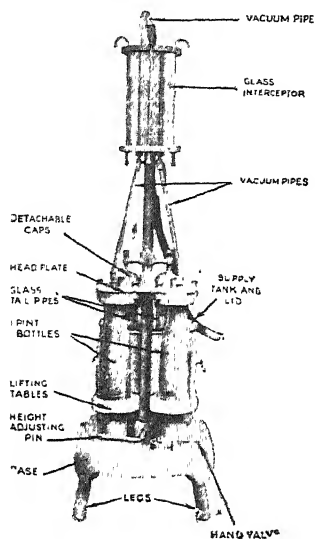
"Wallis Safety Cap" Seal, which is a step in the right direction, as it certainly gives complete protection to the milk in the bottle from contamination of any kind or interference with the milk by the man who delivers it, also it is a very easy seal to remove from the bottle, and once off it cannot be replaced or another seal substituted as this could only be done by the sealing machine.

The Bottle Filling Machine, exhibited by Mr. Geo. S. Clayton and which was awarded a Bronze Medal, is constructed on lines which eliminate many of the undesirable features of most bottle fillers. The machine gives dead accurate measure, and the measuring cups could be stamped by the L.C.C. if necessary. The milk enters the measures free from froth, and this is accomplished by drawing the milk into the measures from the bottom of the milk reservoir. The air passes from the measures up a tube which rises above the level of the milk in the tank. The measures are not immersed in the milk as in the case with other measuring machines and which is very objectionable on account of the leakage past the rising spindles in such machines, which gives excess quantities in the bottles after such machines have been in use a short time. The Clayton Filler also has an adjusting spring which keeps the sections of the measuring cups always close fitting and prevents loss of contents and consequent short measure. Another important feature of this machine is that in the event of a bottle falling over the machine automatically stops.



BOTTLE FILLING AND MEASURING MACHINE.

Milkfillers (Sales), Ltd., were awarded a Silver Medal for a very cleverly designed Milk Bottle Filler which worked on the Vacuum principle, the milk being sucked into the bottles at great speed giving dead accurate filling to a fixed point in the bottles, and any foam is



MILK BOTTLE FILLER.

immediately sucked up the tube connected with the air pump when the milk had risen to the "full" point, which was determined by the position of this tube. The foam is sucked into a glass reservoir where the air bubbles collapse and the milk runs back into the supply tank, which can be placed in any convenient position on the ground. The washing of this machine is one of its strong features apart from dead accurate filling and the removal of milk foam, as a washing solution can be continually circulated round and round the whole apparatus for any desired length of time, and this can be followed by clean hot water, so that it appears to be unnecessary to take the machine to pieces except for final steaming.

With one or two small improvements in themselves of no very great importance, this machine should command the serious attention of all

those responsible for bottling milk on a large scale.

The exhibit of Mr. Geo. S. Clayton, consisting of a small plant for Washing and Sterilizing Bottles, was a very efficient plant for a very small output, but not at all suitable for dealing with large quantities of bottles. This was awarded a Silver Medal in its class.

Messrs. Arthur Enock & Co., Ltd., were awarded the First Prize for a small Refrigerating Plant, but another year conditions relating to this Class should be published at a much earlier date.

POULTRY SECTION—DAIRY SHOW, 1926.

By R. FLETCHER HEARNshaw, F.Z.S.

EACH year the Poultry Section of the Dairy Show grows in importance. The quality of the birds improves and the number of breeders who attend the event become more and more each year. Some pessimistic people said this year, on account of the General Strike and the Coal Strike, that the entries and the attendance would be less than usual, but this was not so, and the 1926 Show was one of the most successful in the long history of the Association, for whatever other shows exhibitors show at they feel they must show here, and whatever other shows they attend they feel they cannot miss the Dairy Show, for here one sees the pick of the season's breeding, and many people attend with the idea of buying either stock or show birds, and this fact was reflected in the sales for during the Show over one thousand pounds worth of live and dead poultry were sold, thus showing that people still have faith in the future prosperity of the poultry industry in this country.

To have received an entry of well over four thousand in this section is a fact that this Association can well be proud of, considering that late entries are never taken at this event, and that all entries must be in before the official date for closing.

Mr. W. S. Brocklehurst is still the popular chairman of the committee, and he is well supported by active and practical men who work hard to maintain the reputation of this successful Show.

Mr. R. Kirk, as chief steward in this section, again got through an enormous lot of work, and he was well supported by a lot of practical stewards, who got through their work in a most commendable style. Space is still limited, therefore it is impossible to increase the classification. It is well to mention this, for each year applications are received for the addition of new classes that it is impossible to find space for, therefore they have to be refused with regret. The thanks of the committee are due to the Judges in this section who are always most carefully selected, and this year did their duty very well indeed, in the majority of cases getting done in good time and giving general satisfaction. The Gold Medal for the Best Fowl in the Show was won by Miss N. Shank's Black Orpington pullet, a most typical good coloured bird, in fact it was like old times to find an Orpington taking Best in Show here again, but it was a very popular win and met with general approval.

Mr. B. Ravenscroft, assisted by Mr. F. J. Bull, carried out the secretarial duties in a manner that only past masters in this capacity can do, they had everything in splendid order.

Messrs. Spratts Patent, Limited, did the penning and feeding in their usual good style and tackled the work in a manner one would expect from a firm of such wide experience in these big events.

A new regulation of the London County Council that all baskets must be removed from beneath the pens and stacked apart from the Show added immensely to the task of unpacking and packing the birds. This is evidently a necessary precaution against fire, so it must be carried out; in fact one often wonders there are not more fires at poultry shows considering the careless way one sees matches and cigarette ends thrown about very frequently.

Miss M. H. Clay was not able to fill her engagement, owing to indisposition, to judge Rhode Island Red pullets, so these were taken by Mr. Dyson, who also judged the cockerels.

Mr. H. Abbott not having returned from South America, his classes had to be taken by Mr. G. W. Barker.

Major J. A. Morrison, the popular President of the Association, was, as usual, a big exhibitor in this section.

No classes were cancelled in this section this year. The sale of exhibits, as usual, took place in the old spot on the second morning of the Show, and Mr. Walters, as usual, was the auctioneer.

The attendance at the sale was good and in many cases the bidding was brisk, many birds changing hands and many more claimed during the duration of the Show. Many birds did not look at their best on the first day on account of the very cold weather and we heard of many birds and many people catching very nasty colds; in fact we never remember feeling the Agricultural Hall more cold or more draughty.

The demand for Buff Rocks was great, and Mr. John Taylor's First and Special cockerel was sold for £50, and Mr. J. H. Lamacraft's First Prize pullet catalogued at £25 made £30; so next season we shall probably find more people breeding this breed with the hope of breeding equally good ones.

Then, as usual, the demand for Modern Game Bantams was good, the winning Black-red cockerel shown by Mr. Walter D. Trickett made £50; the winning pullet of the same variety, shown by Rougvie & Son, making £15; and the winning Birchin pullet, shown by Mr. T. H. Stretch, being a bargain for her new owner at £10 10s.

There was a good demand for Rhode Island Reds, White Wyandottes, Indian Game and Barred Rocks and anything else that was good and cheap. As usual, many Bantams were sold in the Selling Classes and many of these won at smaller shows later in the season. Mrs. Wykeham's White Turkey, the first prizewinner, made £5 15s.

Large numbers of other birds were sold during the Show at satisfactory prices to their owners, and no doubt this brisk demand is

why we see such good birds entered in the Selling Classes here, year after year, for the quality in these classes gets higher and higher and, therefore, more difficult to win.

The auction sale of the 223 exhibits in the Table Poultry was quite in keeping with the high standard of the exhibits, the average price being excellent. The top price was 105s. for the Gold Medal winning White Wyandottes shown by Colonel H. Watts.

Other good prices for pairs were Mr. Thomas Sutton's First Prize Sussex cockerels 62s. 6d., Second Prize Dorking cockerels 60s., cross-bred Indian Game and Sussex cockerels 75s. the pair. Colonel H. Watts' cross-bred Indian Game and Sussex cockerels 60s. The 86 pairs of chickens in the open Table Classes, averaging 37s. per couple, was very good indeed.

The *Table Poultry*, as usual, made a great show and, owing to the big entry in cheese, it was found necessary to remove them from their usual home in the Gilbey Hall and to stage them upstairs near the Utility Poultry Section, and many people appreciated this, being able to see the live and dead utility birds together.

There is always a good demand for really first class table poultry, and it is a pity that more good ones are not produced, for the table poultry industry in this country is one that should be encouraged in every way, so it is with that object in view that the committee always make a strong feature of this section at the Dairy Show. The class for pure bred Sussex cockerels contained 18, and that for pullets 14, and they were a very fine lot indeed to look at. The class for Petits Poussins had 10 entries. Indian Game Bantams should stand a good chance with their nice breast meat.

Eggs, as usual, were a very fine collection, the class for White having 25 entries, and that for Brown an equal number, whilst the Tinted came up well with a nice even lot of 24 entries.

The *Dorkings*, as usual, came first as one of our oldest breeds in the Exhibition Classes for Live Poultry, and they had an increased entry, the entries this year numbering 59 against 30 last year, which looks like a revival in this good old breed; the winning Dark pullet was a beauty and she took the Medal. Mr. Harold Corrie took first and second in the Any Other Colour Class with a very nice pair of Whites. The colour of the winning pullet was one we do not often see to-day, and it takes one's thoughts back to the beautiful ones shown by the late Mr. O. E. Cresswell.

The *Croad Langshan* Classes were very strong, both in numbers and quality, 64 entries being made in the two classes. The general improvement in this breed has been very great of recent years, but of all the points at the present moment there is the greatest room for improvement in the comb. Many of the birds, fine in quality otherwise, took lower positions owing to crooked combs in the pullets and too many serrations in the combs of the cockerels. Several birds were slightly whip-tailed instead of the required fan shape, and a few

lacked size, which is important in such a good table bird; in fact, this breed may well be described as a dual purpose breed as they are also good layers.

Brahmas had two dozen entries in four classes, not a great turnout. We have seen much better Lights shown here, especially in the cockerels. The Dark cockerels were young and undeveloped, so the oldest and most forward won; but the pullets, although few, were quite good.

Cochins were four less than last year, only 16 being entered, and Buffs won both classes. Some nice Blacks were also shown.

Sussex were again a wonderful section and seem to be as popular as ever, the two classes provided for Lights containing 130 birds, a show in themselves. Two new classes were put on this year for Buffs and they contained 34 nice birds, the pullets being better than the cockerels at present in this colour.

Speckled made two nice classes with 55 birds in them, the winners were very typical birds, especially the pullet, she was greatly admired.

Red *Sussex* came up well, and type and colour have both been much improved in this colour.

Brown *Sussex*, as usual, were not so numerous, and here, as usual, Mr. Charles Hardy won both classes and took the Special.

Wyandottes are always a strong section and this year they again came up well, the Whites, as usual, were the largest classes with 55 cockerels and 66 pullets, but we thought, taking them as a whole, that we have seen a much better lot of birds here in past years, but the winning cockerel, shown by Mr. John Wharton, was a beauty, and he took both the Silver Medal and the Special Prize.

The revival and the improvement seen in the Laced Varieties was well maintained, and the winning birds in both the Silvers and the Golds were very typical well-laced birds.

In Blacks 38 entries were received in the two classes, and the wonderful team of pullets shown by Mr. Roger Hargreaves made a clean sweep. The cockerels we did not think were such a good lot as usual.

Columbians, with 40 entries in two classes, still maintain their popularity because they have a very good specialist club to look after their interests, and egg output has always received the serious consideration of breeders of this breed.

Partridge Wyandottes had 25 entries in two classes, against 24 last year, but this breed always appeals to the breeder and the general public because of its beautiful colouring. The cockerels we thought a very moderate lot, but the pullets were a grand lot.

As usual, many bargains were to be found in the *Wyandotte* Selling Classes, and many birds were claimed here, the sales being especially brisk amongst the Whites.

Orpingtons had a nice entry, and the quality all round was good. Blacks were grand quality classes, the winning pullet being the Best Bird in the Show.

Whites had only 22 entries in two classes, but that was better than last year when the cockerels were cancelled and only 10 pullets shown. Buffs had an increased entry, as one would expect with Mr. W. J. Golding judging, the expert who in past years has bred so many winning Buffs. Blues do not make much headway and only 26 were entered in the two classes.

Rhode Island Reds are as popular as ever, especially the Single-combed ones, the cockerels having 89 entries and the 94, pullets such large classes teeming with quality being very difficult to judge.

On the whole they were not such a coarse lot as we have seen here; the Red men are now evidently thinking of utility properties, and we are not far from the day when the exhibition Red and the utility Red will be one and the same bird. We also noted the neater combs and less white in lobes than formerly. Colour in both sexes has wonderfully improved, also shape.

Mr. E. A. Cass was engaged at the last moment to take the Rhode Island Red Selling Classes, as otherwise it was thought that Mr. Fred Dyson in taking his own classes and Miss Clay's would have too much to do. The Rose-comb Reds had 38 entries in two classes, and at the moment they seem to be having a revival; they excelled in type, size and colour. We thought the pullet class contained many good birds.

Barnevelders are daily increasing in popularity, and they had 126 entries against 94 last year; this breed is very hardy and seems to thrive anywhere. In addition, the lovely brown eggs it lays are a great attraction, and the cockerels make very good table birds and the colouring of the breed is attractive to most people.

Anconas had an increased entry on last year and are always a popular variety, the quality throughout being very good. There was a general improvement in the quality of tipping and ground colour, especially in the cockerels. The winning pullet was very excellent in breed characters and fully developed, this being a breed that quickly matures.

Frizzles were a grand lot, and one would expect it with such a well-known breeder of the variety as Major G. T. Williams judging them. A Red cockerel won, followed by a nice pair of Whites. This is a breed that always attracts the attention of the casual visitor to poultry shows, and although quaint they are very hardy and easily bred and are splendid layers, in fact we wonder more people do not breed them.

Polish were only a shadow of the past, for the class provided for them could only muster six entries, White-crested Blacks doing all the winning.

Old English Game came along in great numbers, the four classes containing 76 birds, which was a compliment to the popular Judge and breeder, Mr. H. Jones Robins, who is a great man for type and condition. Several chickens were not quite ready, but he went for the medium-sized clean cut bird. The winning Black-red cockerel was very bright in colour with good feet and legs, and the Medal-winning cockerel in the Any Other Colour was a really good Red Dun.

Minorcas showed a big increase in entries on last year, and the Judge selected the winners well, going for a more moderate bird than we have seen in recent past years, the tendency being to-day for much smaller lobes and combs; in fact, to get the breed more on utility lines again.

Andalusians had only 19 entries in two classes, and to-day seem to be falling away very much in popularity, so many new breeds having come along to take their place.

Leghorns are as popular as ever, and probably no breed has held its hold so long, or so consistently, in this country as Leghorns have. Whites as a whole this year were not perhaps quite so good as we have seen at this event in past years. We missed seeing Lord Dewar's fine team in this section, he not being able to show on account of his poultry manager being one of the Judges this year.

The Brown cockerels were a very even lot, somewhat better average quality than seen here for some time, although nothing really stood out. Brown pullets contained some wonderfully fine specimens and the quality was far above the average.

Black cockerels were not large in numbers, but the winners were birds of exceptional merit. The Black pullet class was possibly the best section for quality, the winner was well away, but then there were a large number of exceptionally fine specimens behind her; in fact, we do not remember seeing a better class.

Exchequers were far superior in quality to any we have seen at previous Shows, the winning cockerel being possibly the best ever staged.

The Any Other Colour Leghorn Classes contained a lot of wonderfully good specimens, and competition was very keen with 19 cockerels and 22 pullets entered, Duckwings standing first in both classes, although some nice Buffs, Piles and Blues were shown.

Rocks, as usual, were a very popular section, the six classes provided for them containing 136 entries, the Barred, as usual, were the strongest classes, the winning pullet in this colour taking the Silver Medal. Although she was quite young she looked most promising, and well deserved her position. The winning cockerel was a very forward chicken. Buffs were indeed a grand lot, and this was proved by both the winners being sold at big prices, the cockerel for £50, and the pullet for £30, after which we heard several breeders say they were going to breed exhibition Buffs, for evidently this is where the demand and

the money is, and to-day, without doubt, there is a tremendous demand for good Buff Rocks for both exhibition and utility purposes, and the laying strains are splendid layers and hardy—a good farmer's fowl.

The winners in the Any Other Colour Rock Classes were all Whites, and they were a very nice lot of well grown chickens.

Sicilian Buttercups had a very poor entry, only 21 in two classes, against 42 the previous year. Evidently the interest in this variety is waning and there is not much improvement in the breed of recent years. In Golds a nice pullet won, and in the Any Other Colour a Brown cockerel, followed by a nice Duckwing pullet.

*Silkie*s were very good in all three classes and some excellent specimens were penned; most of the birds were staged at a convenient height and in a splendid light. The winning White cock came from Scotland and he was a beautiful bird well shown, and the winning White hen from Wiltshire, thus showing how well the breed is distributed. In the Any Other Colour Silkie, Partridge hens were first and second, and a nice Black third. There is a tendency for this breed to get too heavy in crest, which must be avoided, and also they are inclined to get on the small side. We do want a bit of size in them. They are hardy, good layers and wonderful sitters, in fact, I know nothing to equal them for broody purposes and chicken rearing, either pure or crossed.

Indian Game are always two strong classes, and this year contained 62 good chickens, and we thought were well handled by the Judge. Mr. Richard Belcher won both classes, taking the Medal and Special with his cockerel. He was a rare shape, wide and low, excellent in colour, and well shown.

Campines had an entry equal to last year, and many fresh names were found amongst the winners, which is a healthy sign. The Silvers were the strongest classes in numbers, but the Golds were the best in quality. Some of the chickens were rather backward, but the very best quality was found in the Gold pullet class, the first five here being hard to separate; the winner got there for her wonderful tail. This breed lays a big egg for the size of the bird, and plenty of them.

Salmon Faverolles had two classes with 33 entries, against 25 last year. This is a very pretty variety, but many people object to a feather-legged variety on account of it being inclined to get scaly legs.

Bresse had four classes provided this year with a much larger entry, which proves the popularity of this breed at the moment, in fact, we have never before seen such strong competition here. The quality as a whole was really good, especially in the Whites. The winning cockerel stood out for quality and type, but there is still room for improvement in putting the Whites down in good show condition. The Blacks were a nice even lot and there was very little to choose between the winners, but some of the birds were inclined to show purple sheen instead of green sheen on the feathers.

Any Other Variety Classes at this Show are always most interesting, and are probably the classes where one can learn most, for one usually finds something shown here that is not often seen at other shows. In the cockerels a beautiful Black Hamburg won with a nice head and plenty of feather; second was a tall Modern Langshan; and third a typical beautifully barred Scots Grey, a breed that is very hardy and one that is becoming more popular at the moment.

The pullets were a nice class of 20 entries, and here a Modern Brown-red Game, of grand shape and reach and lovely colour, won. Next being a nice Modern Langshan, and third a beautiful Scots Grey.

Breeding Pens always make an attractive section, and shown as they are in trios, they look very pretty. The class for Rocks, Wyandottes or Orpingtons was won by a lovely trio of White Wyandottes, well shown.

The *Any Other Variety* Class was won by a typical trio of Indian Game. They also took the Silver Medal and were claimed at catalogue price £45.

The *Selling Classes* received good entries throughout and many real bargains were found in them, in fact, at no show is more attention paid to looking through the *Selling Classes* than here.

Waterfowl, as usual, had an extended classification and received a good entry and made a nice display.

Rouens came first with 15 entries against 16 last year. For beauty and colouring of plumage they appeal to everyone, but like all good things the best are rather difficult to produce, the winning drake and the winning duck being two lovely birds.

Aylesburys had a nice entry of 31 in two classes, and here the winners had nice size, deep keels and good bills.

Indian Runners had six classes and they were well filled. In Fawns, many birds of great merit were to be found, but many of them might have been shown in better condition. White Runners have made great strides, the improvement in head being especially noticeable here. In general condition, however, the Whites were better than the Fawns. Breeders of Fawns must pay more attention to the body shape, and aim at a more uniform rotundity of body with increased length. If this is done there is no reason why the Whites should not in a short time equal the Fawns in general appearance.

Buff Orpington ducks had 40 entries against 31 last year, and have much improved in both type and colour, the winners excelling in these points and were well shown.

Magpie ducks, as a new variety, had only one class with 12 entries. They do not seem to be making much headway.

The Black East Indian or *Any Ornamental Variety* was interesting, first and second going to Black East Indians, and third to a very pretty Mandarin of nice colour in good feather.

Khaki Campbells seem popular at the moment and had a good

entry of 40. The winning drake was a strong bird, in good condition and of nice even colour. The winning duck was a bird of nice type with a beautiful head.

Any Other Variety Duck Class was an interesting one with 17 entries. Here the winner was a nice white Crested of good size and colour; second a nice Pekin drake of good colour; and third a nice Cayuga.

Geese were small classes, only 11 entries in both against 21 last year, but the quality was excellent and several were sold.

Turkeys had 55 entries in four classes against 72 last year, which was a big falling off. The competition, as usual, was very keen, and a high standard of type and quality was well maintained.

Utility is always a strong section, but this year with the same seven classes provided there was a falling off in entries, only 412 being entered against 431 last year. It is pleasing to note that breeders are at last beginning to realise the necessity of breeding for more size and better type, hence constitutional vigour naturally follows. There is a limit, however, to size in the breeding of Utility poultry if one wishes to retain the laying qualities which all Utility men, of course, must have as their chief aim, and certainly many of the White Wyandottes here had got beyond that limit, thus exhibiting coarseness and too much feather, resembling very much the outcasts of pure exhibition strains, but, taking the class as a whole, there were some very fine specimens, and the winners and carded birds were of the medium class for size, combining type and quality of feather, sharp alert heads, nice bone and silky texture.

White Leghorns were a fine average lot taking them all through, some of course not being in laying condition and others exhibiting coarseness, but very few small birds. The winners and carded birds were a fine lot of upstanding birds with good legs, long deep bodies, good broad backs, sharp and alert in head, with good eyes and silky in texture.

Black Leghorns were a fine average lot taking them all through, but they failed chiefly in leg colour, there being only about three birds with really good legs in the class. The winners were remarkably good bodied birds with good heads.

Australorps, with 22 entries against 24 last year made a nice show, although they do not seem to become much more popular as a Utility breed, still they are nice to look at and suitable for town runs.

Rhode Island Reds had a good entry, the competition was keen and the quality excellent, the entry being only four less than last year. One noticed considerable improvement in colour and type.

Light Sussex in Utility had 65 entries against 83 last year. This breed is very popular now all over the country. The winning pullet here received the Medal for the Best Utility Bird and was claimed at catalogue price £5, at which price she seemed to be a bargain.

Any Other Variety Utility is always interesting as one does find

a great variety entered, and a useful Black Minorca pullet headed this class, a nice Red Sussex being second, and a nice Ancona third.

Bantams are always a strong feature of this section and this year proved no exception to the rule, for we found a wonderful collection. Modern Game had an increased entry which was a compliment to Mr. J. H. Carré, who came all the way from Guernsey to judge them. The Black-reds, as usual, had the largest entry and the winners in both classes were claimed at catalogue price.

Piles came next and the entry was good, but the quality all round was not so good as we have often seen here.

Duckwings followed and they were indeed a grand lot, but they were penned in rather a bad light. In the Any Other Colour, Birchins took all the Money prizes, the Silver Medal for the Best Modern Game Bantam going to the winning Black-red cockerel.

Old English Game Bantams made a good show and some very typical birds were shown in good condition. Wheaten hens were excellent, and the winner took the Medal. She was of nice shape and colour with good legs and feet.

Variety Bantams made a nice display, the Silver Medal for the Best cock going to the winning Silver Sebright, and he deserved it, the same bird winning at Birmingham Show shortly afterwards, and the Silver Medal for the Best hen went to a nice shaped well-pencilled Partridge Wyandotte that easily won her own class.

Black Rose-combs made a nice show with an entry of 31 in two classes. Minorcas and Pekins seem to have lost their popularity, and both had decreased entries on last year. Sebrights are still very popular and had a good entry.

Japanese were a well filled good quality class. Frizzles came up well. Polish cocks were not a good lot, but the hens we thought were one of the best lot we have ever seen at this Show.

Wyandotte Bantams seem to become more popular every year, the Whites, as usual, having the largest two classes, and the Partridge a big increase on last year's entry, which shows they are becoming more popular. Belgian Bantams and Hamburgs do not seem to make much headway. Indian Game Bantams made two nice classes with 25 entries in the two. Probably the two most interesting classes were the Any Other Variety for Bantams, and these two classes had 31 entries, and in each class Scots Grey Bantams stood first, a Black Leghorn on the big side was second in cocks, and third a nice White Rose-comb. The second hen was a lovely Dorking Bantam, and a nice Jubilee third.

The five *Bantam Selling Classes* had an entry of 65 birds and many real bargains were found in these classes, many birds being claimed in them during the duration of the Show, in which case, after the auction is over on the Wednesday morning, the first claimant takes the bird.

PIGEON SECTION—DAIRY SHOW, 1926.

By W. S. BROCKLEHURST, J.P.

The forty-eight Annual Show was held on October 19th, 20th, 21st, and 22nd, 1926, at the Royal Agricultural Hall, London, and was again a great success, not only as regards numbers and quality of the exhibits on view at the Show, but also as regards the attendance which was greatly in excess of last year, and the receipts were well above those of last year. The entries in the Pigeon Section were 86 up on last year's Show, and 152 entries more than two years ago. The figures for the last three years Shows are as follows: in 1924, 3,028; in 1925, 3,094; in 1926, 3,180, which number is about as many birds as can be staged with any comfort owing to the very limited space available for the Pigeon Section, which has long been a source of concern to the Committee, and complaints from exhibitors, who still, notwithstanding all their complaints, make a good entry year after year, showing that notwithstanding the unavoidable lack of space to stage the pigeons better, the Dairy Show is a fixture that all pigeon fanciers are anxious to see their birds in the pens, and how they compare with their fellow breeders.

That the Pigeon Section has lost none of its interest with the general public was noticeable by the large number of the public who passed through the aisles each day of the Show and asked to be shown the winners of the medals and different cups offered by the British Dairy Farmers' Association and other Specialist Clubs for competition each year. This year owing to the new rules of the National Pigeon Association and Marking Conference coming into force, that all pigeons shown must wear the proper ring as issued by the National Pigeon Association, with the exception of the breeds in the Variety Pigeon Club which are exempt until 1928, many good birds had to be passed over as they had no rings on; also several birds that had not been properly transferred to their new owners had to forfeit their prize money as they were not eligible to compete under the new rules of the National Pigeon Association. It is to be hoped that exhibitors will not make these mistakes next year when showing at the Dairy and other Shows which are held under N.P.A. rules.

The winners of the principal trophies offered by the Association for competition this year are as follows :—

The Association's Gold Medal for the Best Pigeon in the Show bred in 1926, was awarded to Class 3, Pen 36, Mr. F. H. Jarvis' White Fantail cock. The Reserve going to Class 181, Pen 2089, Mr. W. E. Horsfall's Yellow Jacobin.

The Jones' Memorial Trophy for the Best Adult bird in the Show was awarded to Class 38, Pen 433, Mr. F. Meyer's grand yearling Carrier cock which also won the Carrier Club's Challenge Cup for Best Adult Carrier and the Association's Bronze Medal for the Best Carrier in the Show. The Reserve going to Class 47, Pen 543, Mr. G. Sugden's Barb cock.

The Esquilant Challenge Trophy for the Best Young bird in Section No. 4, Dragoon, Antwerp, Show Homer, Exhibition Flying Homer and Racing Pigeon, was awarded to Class 213, Pen 2428, Mr. J. H. Smith's Antwerp cock, and the Reserve going to Class 221, Pen 2518, Mr. T. Adams' Show Homer.

The Fulton Challenge Trophy for the Best Young bird bred in Section No. 1, Pouters, Pigmy Pouters, Norwich Croppers, and Carriers, was awarded to Class 16, Pen 173, Mr. A. T. Jupe's young Pouter hen, and the Reserve was awarded to Class 27, Pen 292, Mr. J. L. N. Cutt's White Pigmy Pouter.

The birds winning these much sought after trophies were wonderful specimens of the different breeds, and the competition gets keener and keener each year, and the owners are to be congratulated in having successfully bred and shown a bird of such merit, good enough to be able to carry off one of the above trophies, in such a grand company of birds as is seen each year in the Dairy Show pens. Details of the various varieties are as follows :—

Fantails numbered only 142 entries in 12 classes, as compared with 173 entries in the same number of classes at last year's Show. The classes on the whole were good in quality and up to the usual high standard, though the Saddles were disappointing. The winner of the Association's Gold Medal for the best young bird bred in 1926 was found in this section and fell to Mr. F. H. Jarvis' young White cock, Class 3, Pen 36, a bird of correct type and size.

Pouters numbered 36 in the four classes, as compared with 26 in the same number of classes last year, an increase of 10, which is the largest number that has been seen at the Dairy Show for some years. The birds penned were of good type and quality. The young classes were very good especially the young hen class in which the competition was very keen throughout, and Mr. A. T. Jupe is to be congratulated on securing the Fulton Trophy with his grand young hen, Class 16, Pen 173.

Pigmy Pouters.—This variety showed a slight decrease on last

year's total, there being 141 entries in 13 classes, as compared with 148 in the same number of classes last year, but if the entries were less this year the quality of the birds penned was better, and showed a good improvement in type. In the old Adult Blue, Silver and Blush Classes the quality was very good and competition very keen; in the Hen Class, in particular, the standard of merit was very high, there being one or two very good old hens shown. In the young classes the hens were the better lot, and I am sure the Judge had a job to sort out the winners in the 17 entries in the Young Blue or Silver hens. I don't think a better lot of young hens has been seen together for some time. In the Young Black Cocks Class there were quite a nice lot of birds of exceptional type and merit, but the young hens were a poor lot with the exception of the winner which stood away from the others. As a class they were a disappointing lot. It was amongst the Young Whites, Mr. J. L. N. Cutt's Pen 292, Class 27, that the Reserve for the Fulton Trophy was found.

Norwich Croppers had an entry of 87 in six classes, as compared with 79 entries in the same number of classes last year, but not coming up to the wonderful entries in 1924 of 96 entries in five classes. The classes this year well averaged and the quality throughout was very good, and the birds were shown in better condition than is usually the case at this time of the year.

Carriers numbered 80 in seven classes, as compared with 66 in the same number of classes last year, an increase of 14. The quality is still improving, and the birds are not showing quite so much of the Barb skull seen in the last few years, I am pleased to say. The Jones' Memorial Trophy for the Best Adult Pigeon in the Show was awarded to Mr. F. Meyer's grand yearling cock, Class 38, Pen 433. The same bird also winning the Association's Bronze Medal for the Best Carrier in the Show. It certainly is a grand Carrier of wonderful type, carriage and texture of wattle. I regret to have to mention that in this section all the awards have to be altered in Classes 39, 40, 41 and 42, owing to the disqualification of Pen 408 in Class 36, and are as follows:—

Class 39. —1st, Pen 441, F. Meyer; 2nd, Pen 445, F. Meyer; 3rd, Pen 444, Cooper Bros.; Reserve, Pen 447, S. Robson.

Class 40. —1st and Cup, Pen 457, F. Meyer; 2nd, Pen 459, S. Robson; 3rd, Pen 461, F. Meyer; Reserve, Pen 462, A. Taylor.

Class 41.—1st, Pen 463, S. Robson; 2nd, Pen 469, F. Meyer; 3rd, Pen 465, F. Meyer; Reserve, Pen 471, A. J. Warwick.

Class 42.—1st, Pen 476, Cooper Bros.; 2nd, Pen 481, Cooper Bros.; 3rd, Pen 472, Cooper Bros.; Reserve, Pen 484, C. S. Palmer.

Holle Croppers.—These classes were introduced at the Dairy Show last year for the first time, when there was an entry of 45 birds in three classes. This year another class was added which increased the

total by 10 only, there being 55 in the four classes. They were a good lot taking them all through, showing that they are going ahead well, but we are sorry to see that several birds were marked as being entered in the wrong class. There seems to have been some misunderstanding by the Judges and exhibitors as to the meaning of the wording of several of the classes as to which are barred birds and not barred birds. It is to be hoped that the Holle Cropper Club will come to an understanding as to what they are going to term barred, and not barred birds. It caused a lot of comment at the Show this year amongst exhibitors and public alike.

Barbs had one more class this year; these in all making a total of 26 only as against 16 in two classes last year. Some nice quality and type of birds were on view, and it is pleasing to see so few of the heavily fleshed, watery-eyed birds being shown now. They are fast dying out and the nice clean sized ones taking their place in the prize list.

The Reserve for the Jones' Trophy was found in Mr. G. Sugden's Adult cock and true typed pigeon.

Dragoons.—This variety was easily the largest section in the Show and turned up in large numbers again, only being eight short of last year's entry, there being 420 in 32 classes, as compared with 428 in the same number of classes in 1925. The Judges report on the Adults and Yearlings is as follows :—I have little to comment upon except the quality of the birds penned. All the 20 classes except the two for Whites contained birds of undoubted merit, and I was pleased to notice that all the leading Dragoon fanciers were represented by their best birds. Speaking as an exhibitor who attended the Show last year, I should say the quality was decidedly improved upon. I was disappointed that several classes that usually fill well had poor entries, and that the total was about half-a-dozen down on last year, possibly this can be accounted for by the late moulting season that all fanciers are complaining of.

The report on the Young Bird Classes is as follows :—The 1926 bred birds were a grand lot of birds, in fact, I consider they were the best that have been shown for some years, and the classes were well filled, especially the Reds and Yellows which have much improved, it being a record for this colour. I was sorry not to see more Red Chequers, but at the same time pleased to see a few new breeders of this colour, and the breeders must look to the beaks as they are getting on the fine side. Taking the Dragoon Section all through, they were a grand lot and shown in grand condition despite the late and bad moulting season experienced by most breeders.

The winners of the Dragoon Club Challenge Cups are as follows :—The George Cotton Challenge Cup for the Best Cock bred in the current year was awarded to Mr. W. Bastard's Blue Chequer cock, Class 71, Pen 801, and also the Association's Silver Medal for Best Young Cock.

The George Cotton Challenge Cup for the Best Hen bred in the current year was awarded to Mr. J. Russell's Blue Chequer hen, Class 77, Pen 926.

The Hewitt Challenge Cup for the Best White Dragoon bred in the current year was awarded to Mr. E. C. Hollebome's White Young hen, Class 81, Pen 978.

Short-faced Tumblers.—In this section 64 entries in five classes made a slight increase of seven on last year's total of 54 in the same number of classes, and with the exception of the Almond Adult Hen Class the others were well filled, and the birds showed a great improvement on former years as to true type and condition. Mr. T. Grindley carried off the Association's Bronze Medal with a grand little Almond shown in grand form and condition and wins well.

Long-faced Tumblers.—Self section had a splendid entry of 229 entries in 16 classes, as compared with 236 in 1925, seven less. The Black and Red entries were an exceptionally good and even lot, the competition in the Reds has been increasing for some time now and is very keen. The quality of both the Blacks and Reds has improved very much, and the young classes in both colours were a very even lot and took a lot of placing. Mr. W. R. Atherton winning the Association's Silver Medal with a grand young Black hen for the Best Young Self bred in the current year. The type that has been noticed, for some years now, to be improving, has been well maintained in the Blue, Silver and Chequers Classes, and the quality and type throughout all the Self Classes was very noticeable. We were sorry to see that the Chequered and Grizzle Classes were not better filled, and may be dropped if entries don't come up better another year, and the room given to other varieties.

In the *Long-faced Tumblers, other Varieties Classes*, the entries numbered 167 in 15 classes, as compared with 151 in 21 classes last year, with an increase of three classes. The entries only came up 16 in number, there being one or two classes which were very poor indeed, especially the Clean-legged Young Cock or Hen Class. The Black Baldhead Classes were a good lot and the quality was very good throughout. Mr. Herbert Pole's young Black Baldhead, Class 105, Pen 1313, winning the Association's Silver Medal—a grand young pigeon.

English Owls.—The entry this year was again an improvement on last year, there being 110 entries in nine classes, as compared with 82 in seven classes last year, and again the young classes were the best filled and the quality was exceptionally high, and the old birds were a very good lot and shown in good condition. The Yearling Classes though very good in type and quality were the worst filled classes, which was somewhat disappointing considering the number of very good youngsters seen last year. Messrs. W. B. McCombe & Son's, Class 124, Pen 1509, were the winners of the very handsome

Gatty Perpetual Challenge Cup awarded for the Best Young Bird bred in the current year.

African Owls.—This section of the Show is by far the worst in the Show and gets worse each year, there being only 20 entries in four classes, as compared with 34 entries in six classes in 1925. The Committee having been asked to increase the classes that year from two to six, but owing to the very bad response from African Owl breeders they were reduced to four classes. Thus it looks as if the African Owl Section will have to be left out of the Schedule in next year's list of classes, as not only is there no response in entries but no competition, as out of the twenty entries this year there were only four of them that did not belong to the same exhibitor. It looks as if the African Owl Fancy is done.

The winner of the Gatty Perpetual Challenge Cup for the Best Young Bird bred in the current year was won by Mr. Watmough, Pen 1565, Class 128, a nice typed and quality young pigeon.

Turbits showed a big decrease of 28 entries on last year's entries of 80 in eight classes, there being only 55 entries in the eight classes. This section is also very poorly supported and the Committee may think fit to reduce the classification very considerably next year. One or two birds stood out well from the rest, which were all round very good birds—one being Mr. W. R. Lobb's young cock that was awarded the Association's Bronze Medal for the Best Young Bird bred in 1926.

Archangels numbered 55 entries in four classes, as compared with 41 in the same number of classes last year, an increase of 14. The Young Classes were a wonderful lot again, many birds showing great promise to come, but not ready at the time of the Show.

The Association's Bronze Medal for Best Young Bird was awarded to Pen 1666, Class 141, Mr. E. A. Newberry's young cock, a grand pigeon with plenty of lustre all through.

Modenas came up well with grand entries of 354 in 34 classes, as compared with 329 in the same number of classes last year, an increase of 25. The total being made up of 207 Gazzi in 18 classes, and 147 Schietti in 16 classes. The entries in the Schietti Classes being the same as last year with the exception of one less, there being an increase in the Gazzi Classes which were well up to the usual standard for type, style and quality. The Blues have much improved in Bar colour of late, and the Reds are beginning to show more type and shortness of feather, a great improvement all round. In the Schietti Classes several good birds of correct type were to be seen in the Blue Barred and Black Self Classes, and the lacing on the Red Laced and Argents has improved very much, as has also the general type in these colours.

The winners of the Modena Club Challenge Cups and Association's Silver Medals are as follows:—

Cup for the best Old Gazzi Cock, Class 147, Pen 1748, Mr. A. C. Tattersall's Black cock.

Cup for the Best Old Gazzi Hen, Class 152, Pen 1801, Mr. A. C. Tattersall's Tricolour hen.

Cup for the Best Old Schietti Cock, Class 173, Pen 2011, Mr. W. F. Holmes' Magnani cock.

Cup for the Best Old Schietti Hen, Class 168, Pen 1964, Mr. A. C. Tattersall's Red Laced hen.

Cup for the Best Young Gazzi Cock, Class 145, Pen 1711, Mr. A. E. Sharp's Blue cock.

Cup for the Best Young Gazzi Hen, Class 146, Pen 1728, Mr. W. S. Brocklehurst's Blue hen.

Cup for the Best Young Schietti Cock, Class 165, Pen 1933, Mr. W. F. Holmes' Blue cock.

Cup for the Best Young Schietti Hen, Class 166, Pen 1941, Mr. A. T. Wright's Silver hen.

The Association's Silver Medal for the Best Gazzi bred in 1926 was awarded to Mr. A. E. Sharp, Class 145, Pen 1711, Blue cock.

The Association's Silver Medal for the Best Schietti bred in 1926 was awarded to Mr. W. F. Holmes, Class 165, Pen 1933, Blue cock.

Jacobins.—Numbered 63 entries in six classes, three more than in last year's six classes, which is a slight improvement, but through the classes have much improved since 1924, when there were only 13 entries left after two classes had to be cancelled. We should like to see a greater number of this charming pigeon on view at the Dairy Show. It was rather surprising to see them turn up so well this year when one hears on all sides of the late moulting season, because this variety is very much affected by same, and it is always said amongst the Jacobin fanciers that the Dairy Show is too early for their birds. The birds seen at this year's Show were put down in very good condition, and the quality was very good all through. And the Reserve for the Association's Gold Medal for the Best Young Birds in the Show was found in Mr. W. E. Horsfall's Grand young Yellow, which also carried off the Association's Bronze Medal for best Jacobin.

Nuns numbered 68 entries in five classes, a decrease of 13 on last year's entry in the same number of classes. This variety was well represented in all classes, and the winning birds were very typical of the breed and the Best Adult and 1926 birds were both found in the A.O.C. Class, showing that the blacks are not improving as much as the other colours. The Dun hens made great progress, are now showing much more type and quality, and it is a noteworthy fact that the winner of the Association's Bronze Medal for Best Bird went to Mr. J. W. Neal's grand young Dun hen, Class 186, Pen 2152.

Oriental Frills came up well with 146 entries in 14 classes, as compared with 112 entries in the same number of classes last year, an increase of 34 entries, which is very pleasing, as this section is, I

am sorry to say, often very badly supported by the Frill breeders. This charming variety of pigeon was well represented in both quality and type, and the wonderful balance of type, lacing and markings of most of the birds shown, was very noticeable. The Association's Silver Medal for the Best Young Oriental Frill was awarded to Mr. Charles Hall's young Blondinette.

Magpies numbered 63 entries in six classes, an increase of 12 on last year's entries in the same number of classes. The quality and type of this variety is much improving, and that we are coming back to the beautiful slender, stately Magpie of some years ago, was the opinion of most breeders of this variety, I was pleased to hear. The Association's Bronze Medal for Best Young Magpie was awarded to Messrs. Wm. Martin & Son's young Yellow cock.

Mathams had the usual one class that brought together 11 entries, one less than last year. Here, again, the quality was improving, and the birds were filing down a lot to what used to be seen in the show pens.

Antwerps numbered 53 entries in six classes, as compared with 42 entries in the same number of classes last year, an increase of 11 entries, but not quite up to the number of previous years. They all came up well in number and quality. The winners in both Adult Classes leaving little to be desired. Mr. Jupe's Adult cock was in lovely condition and was easily the best Adult in this section. The quality of the Yearlings was exceptionally good, and the three winners in both classes being of exceptional merit.

In the young birds again the quality was of the best. Mr. J. H. Smith's young Mealy cock standing out conspicuously, and won with ease. The Association's Bronze Medal for Best Young Antwerp, Class 213, Pen 2428, was also an easy winner of the Esquilant Challenge Trophy in Section No. 4 amongst the following birds bred in 1926 :—Dragoons, Antwerps, Show Homers, Exhibition Flying Homers and Racing Homers.

Show Homers numbered 145 in 12 classes, as compared with 152 entries in the same number of classes last year, a drop of seven. The Adult Classes were not so well filled this year as last, but they were well up to the average for quality and contained many really good pigeons. The entries in the Young Classes were better than in previous years, and were a grand lot taking them all through, and the birds were put down in splendid condition. Mr. T. Adams' young cock, Class 221, Pen 2518, to whom the Association's Silver Medal was awarded was Reserve, and a close runner up for the Esquilant Challenge Trophy winner. The United Show Homer Club's Perpetual Challenge Trophy for Best Show Homer, any age, was awarded to Mr. J. W. Swan's Adult cock, Class 219, Pen 2496.

Racing Pigeons numbered 259 entries in six classes, an increase

of three entries in the same number of classes as last year. I will here quote the Judge's report on this section :-

Considering the depressed state of trade an entry of 250 birds in six classes must, I think, be regarded as very satisfactory, and the quality of the exhibits was well up to the standard of recent years.

Occasionally a year brings along one or two birds of absolutely outstanding merit, and if there were none such at the Show just concluding, the winner of the Cup for Best Bird, was well deserving of the award, and it was a striking circumstance that the three pigeons, each winner in its own class, from which I eventually selected this Cup Winner, all proved to be the property of the same owner.

A very satisfactory circumstance was the entire absence from the exhibits of birds showing any trace of the Exhibition Homer type, and apparently fanciers are now realising that such a type has no chance at the hands of a racing Judge. The birds shown were, indeed, simply handsome specimens of genuine racing pigeons such as are successful in our long distance races, and this is as it ought to be. One is perhaps scarcely justified in criticising the classification which succeeds in attracting an average of 43 entries in six classes, but I hope I shall live to see the day when there are separate classes for cocks and hens flown 200 miles and 100 miles respectively.

The winners of the three Cups kindly given by Lt.-Col. A. H. Osman, are as follows :—

The Victory No. 2 Challenge Cup, for the Best Racing Pigeon was awarded to Mr. H. T. Stratton's Young cock, Class 228, Pen 2642.

The Cup for the Best Young Racing Pigeon was awarded to Mr. H. T. Stratton's Young cock, Class 228, Pen 2642, and also carried off the Association's Silver Medal.

The Cup for the Best Old Racing Pigeon was awarded to Mr. H. T. Stratton's Young hen, Class 230, Pen 2734.

I am sure Mr. Stratton is to be congratulated on his wonderful success this year.

Exhibition Flying Homers. This section is going down as compared with a few years ago. Each year sees a reduction in entries, this year there being 65 entries in six classes, as compared with 97 in the same number of classes in 1924, but the birds penned compared fairly well with those of previous years, and Any Other Colour Classes came up far better than was expected, and these bid fair to excel the harder colours in both number and quality. The Association's Bronze Medal for the Best Exhibition Flying Homer was awarded to Messrs. Brooke & Wolstenholme's Young cock, Class 237, Pen 2891.

Genuine Homers.—The four classes given again for this variety brought together 37 entries, as compared with 47 in the same number of classes last year. The quality throughout was good and a great improvement is being made to get a uniform type into the birds.

Ptarmigans.—Two classes were again provided for this breed and brought together an entry of 22, as compared with 26 entries last year, a slight decrease. The quality was very good and the type much improved.

Ice.—The one class had 11 entries, an increase on last year of four; the colour of this charming bird was much more uniform and very excellent.

Swifts.—This one class had an entry of 10, the same as last year; the birds were shown in wonderful condition, and the colouring is certainly most beautiful, and they caused much attention from the public.

Strassers.—Eleven entries in the one class; several colours in this variety are now to be seen and much admired, and the type and condition of the birds shown was very good indeed.

Swallows.—This class was put in for the first time and brought together an entry of 12 very charming pigeons, and certainly the Tiger Swallow shown by Messrs. W. Illingworth & Son is a most wonderful pigeon, and caused a lot of talk amongst fanciers as well as the public. The condition of these birds was also wonderful.

The *Any Other Variety, English or Foreign Toy Class* was an additional class this year, and brought together a good entry of 20 birds, in which were seen a wonderful collection of birds shown in faultless condition, and much admired. It was in this class that the Association's Bronze Medal Winner was found for this section in Mr. H. Whitley's Pen 3031, Class 249.

Runts.—In this class only 14 entries turned up, as compared with 16 last year. This class seems to be on the decrease every year now, and although the majority of the birds showed an improvement in quality, they are deteriorating in size; a great point in a Table Pigeon.

Mondains, Carneaux, or Maltese Class had two classes this year for the first time and had an entry of 20. Both the classes were made up of only Mondains and Maltese and were an excellent lot, and I think the Committee might do well next year to put on separate classes for these two most excellent table pigeon breeds.

The *Any Other Variety Class* was reduced to one this year, and only had nine entries as, compared with 34 in two last year, that being due, no doubt, to the two other new Toy Classes appearing in the Catalogue this year for the first time. They were a most interesting lot and contained several new breeds to the English fanciers.

Selling Classes numbered eight, four at £4 and four at £2, and brought together a total of 102 entries, two less than last year, and nearly 40 less than in 1924. These classes contained some remarkably good birds, many of which were quite good enough for any open competition, many of the birds being classed; but it is surprising that not more change hands as the birds entered in these classes are generally

worth a good deal more than the price they are catalogued at, and the public don't take enough advantage of the chances offered to them.

In concluding my report on the 1926 Show which was again a great success, I should like to mention that I wish to thank my Assistant Steward, Mr. H. J. Heppell, and all the other Stewards for all the help and assistance so ably and willingly given on these occasions at the Agricultural Hall, London, and I sincerely trust and hope to the entire pleasure and satisfaction of all who exhibited, also those present at the 1926 Show.

I wish to thank all those good and true fanciers who acted as my Stewards and Assistant Stewards and gave their services voluntarily and so willingly, which is the most important thing in the running of a great show to a successful end.

I much appreciate the never failing help received from the Secretary and the Assistant Secretary and their staff at any time during the Show when required, and thus helping very much to lessen the hard work of the Dairy Show week.

AWARD OF PRIZES, DAIRY SHOW, 1926.

DAIRY COWS AND HEIFERS IN MILK.

THE BRITISH DAIRY FARMERS' ASSOCIATION'S SUPREME INDIVIDUAL CHAMPIONSHIP CHALLENGE TROPHY, value 100 Guineas for the Cow gaining the greatest number of points on Inspection (as for the Spencer Cup) in the Milking Trials (provided the quality of the Milk analysed during the Test does not fall below 3 per cent. Fat, nor below 8·5 per cent. of non-fatty Solids at any Milking), and twice the number of points in the Butter Test taking only one Lactation awarded to Strutt and Parker Farms, Ltd., for "Lavenham Seabreeze" (British Friesian.)

THE "BLEDISLOE" CHALLENGE TROPHY (presented by LORD BLEDISLOE, P.C., K.B.E.), awarded to the British Friesian Cattle Society for the Best Exhibit of good all-round Dairy Cows. The Cows competing for the Trophy were the first six in the Breed Milking Trials and were considered by the Inspection Judge to be typical specimens of the Breed.

THE "THORNTON" CHALLENGE CUP (presented by Messrs. JOHN THORNTON & CO.), for the Best Group of three Pedigree Shorthorn Cows and/or Heifers upon Inspection only, awarded to P. R. L. Savill for "Combebank Johnby," "Pearl 11th" and "Sweet Rosette 11th."

THE "THORNTON" CHALLENGE CUP (presented by Messrs. JOHN THORNTON & CO.), for the Best Group of three Pedigree British Friesian Cows and/or Heifers upon Inspection only, awarded to E. Furness for "Hamels Foliage," "Hamels Grace" and "Hamels Flashlight."

SPECIAL PRIZE of £10 (offered by Mr. ROBERT L. MOND, J.P.), and SECOND PRIZE of £5 (offered by the COUNTESS DE LA WARR), for Two Animals, the Progeny of any particular Bull, awarded respectively to J. Cochrane, for "Maqueston Mayflower" and "Bryeholm Buntie" (Ayrshires). Major G. R. Dudgeon for "Cargen Holm Letty 7th," and "Cargen Holm White Stockings 11th" (Ayrshires).

THE "MORRISON" CHALLENGE TROPHY, value 100 Guineas (presented by MAJOR J. A. MORRISON, D.S.O.), for the Cow exhibited at three consecutive London Dairy Shows, gaining the greatest total number of points (at the three Shows) upon Inspection, in the Milking Trials and Butter Tests, awarded to A. B. Croxon, for "Spot" (Dairy Shorthorn).

Class 1.—DAIRY SHORTHORN COW.—Entered in or eligible for Coates' Herd Book, or its pedigree sent for such entry previous to the Show, born on or previous to 1st August, 1921. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£10) and quarter of Shorthorn Society's Prize (£10) to J. Pierpont Morgan for "Longhills Belle 2nd." *Second* Inspection Prize (£5) and *Extra* Inspection Prize (£5) to P. R. L. Savill for "Combebank Johnby." *Third* Inspection Prize (£3) to P. R. L. Savill for "Pearl 11th." *First* Milking Trial Prize (£12) and quarter of Shorthorn Society's Prize (£10) to J. Chivers & Sons, Ltd.,

for "Histon Wild Queen." *Second* Milking Trial Prize (£6) to J. G. Peel for "Backwood Seraphina." *Third* Milking Trial Prize (£3 10s.) to E. Macintosh for "Louie 7th."

Class 2.—DAIRY SHORTHORN COW.—Entered in or eligible for Coates' Herd Book, or its pedigree sent for such entry previous to the Show, born after 1st August, 1921, and previous to 1st August, 1923. *First* Inspection Prize (£5) and the "Calvert" Challenge Cup and quarter of Shorthorn Society's Prize (£10) to L. Hignett for "Barrington Lucy." *Second* Inspection Prize (£3) to R. Tustian for "Greattew Swanee." *Third* Inspection Prize (£2) to P. R. L. Savill for "Odell Duchess." *First* Milking Trial Prize (£6) and the "Desborough" Cup to Allen and Rogers for "Grand Duchess Oxford 30th." *Second* Milking Trial Prize (£3 10s.) and quarter of Shorthorn Society's Prize (£10) to R. Tustian for "Greattew Blossom." *Third* Milking Trial Prize (£2 10s.) to E. A. Smith, for "Longhills Darlington 3rd."

Class 3.—DAIRY SHORTHORN HEIFER.—Entered in or eligible for Coates' Herd Book, born on or after 1st August, 1923. *First* Inspection Prize (£5), *Third* Milking Trial Prize (£2 10s.) and the Shorthorn Society's Prize (£5) to P. R. L. Savill, for "Sweet Rosette 11th." *Second* Inspection Prize (£3), to G. P. Golden, for "Lady Mary 7th." *Third* Inspection Prize (£2), *First* Milking Trial Prize (£6) and the Shorthorn Society's Prize (£5) to J. H. Ismay, for "Iwerne Merry Duchess 3rd." *Fourth* Inspection Prize (£1) to G. E. Fitz. Hugh, for "Ashe Cran." *Second* Milking Trial Prize (£3 10s.) to Major R. F. Fuller, for "Chalfield Rose 12th."

Class 4.—DAIRY SHORTHORN COW.—Not eligible for Classes 1 or 2. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society. *First* Inspection Prize (£10) and *Extra* Inspection Prize (£5) to G. Crabtree for "Cowslip." *Second* Inspection Prize (£5) to H. S. Horne, for "Sweet Pea." *Third* Inspection Prize (£3) to H. P. Mortimer, for "Queen." *First* Milking Trial Prize (£12) to W. & J. Hiron, for "Quarrendon Daffodil." *Second* Milking Trial Prize (£6) and the Shorthorn Association's Prize (£10) to A. B. Croxon for "Spot." *Third* Milking Trial Prize (£3 10s.) to Allen & Rogers, for "Evensia."

Class 5.—DAIRY SHORTHORN HEIFER.—Not eligible for Class 3. Born on or after 1st August, 1923. *First* Inspection Prize (£5) to H. T. Holloway, for "Follow 2nd."

Class 6.—LINCOLNSHIRE RED SHORTHORN COW. Entered in or eligible for the Herd Book of the Lincolnshire Red Shorthorn Association. Cows entered in this Class must have yielded a minimum of 7,000 lbs. at five years old or over, or 5,250 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First* Inspection Prize (£10) to J. Evens & Son, for "Burton Vic. 19th." *Second* Inspection Prize (£5) and *First* Milking Trial Prize (£12) to S. Reading, for "Langford Damsel 21st." *Third* Inspection Prize (£3), *Second* Milking Trial Prize (£6) and *Extra* Inspection Prize (£5) to B. G. Bowser, for "Seothern Mystic." *Third* Milking Trial Prize (£3 10s.) to J. Evens & Son, for "Burton Hempy 4th."

Class 7.—LINCOLNSHIRE RED SHORTHORN HEIFERS.—Born on or after 1st August, 1923. Entered in or eligible for the Herd Book of the Lincolnshire Red Shorthorn Association. *First* Inspection Prize (£5) to J. Evens & Son, for "Burton Sylvia 2nd." *Second* Inspection Prize (£3) and *First* Milking Trial Prize (£8 10s.) to S. Reading, for "Langford Polly 21st." *Third* Inspection Prize (£2) and *Third* Milking Trial Prize (£2 10s.) to F. R. Wood, for "Bendish Lass 11th." *Second* Milking Trial Prize (£5) to J. Evens & Son, for "Burton Buttercup 13th."

Class 8.—BRITISH FRIESIAN COW.—Born on or previous to 1st August, 1921.

Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 8,000 lbs., at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.—*First Inspection Prize* (£10) and *Extra Inspection Prize* (£5) to J. Martin for "Netherhall Darkie." *Second Inspection Prize* (£5) to C. W. H. Glossop, for "Lund (imp. 1922) Blanche 22nd." *Third Inspection Prize* (£3), *First Milking Trial Prize* (£12), the "Barham," "Spencer" and "Shirley" Challenge Cups, to Strutt and Parker Farms, Ltd., for "Lavenham Seabreeze." *Second Milking Trial Prize* (£6) to W. G. White & Sons, for "Muntham Troublesome." *Third Milking Trial Prize* (£3 10s.) to Strutt and Parker Farms, Ltd., for "Lavenham Wallen 2nd."

Class 9.—BRITISH FRIESIAN COW.—Born after 1st August, 1921, and previous to 1st August, 1923. Entered in or eligible for the Herd Book.—

First Inspection Prize (£5) to C. W. H. Glossop, for "Lund Juliet." *Second Inspection Prize* (£3) and *Second Milking Trial Prize* (£3 10s.) to W. H. R. Gilbert, for "Iken Lady Graceful." *Third Inspection Prize* (£2) and *First Milking Trial Prize* (£6) to C. H. Harding, for "Hemsted Ellen." *Third Milking Trial Prize* (£2 10s.) to E. Furness, for "Hamels Elegance."

Class 10.—BRITISH FRIESIAN HEIFER.—Born on or after 1st August, 1923.

Entered in or eligible for the Herd Book.—*First Inspection Prize* (£5) and *Third Milking Trial Prize* (£2 10s.) to E. Furness, for "Hamels Grace." *Second Inspection Prize* (£3) and *Second Milking Trial Prize* (£3 10s.) to E. Furness, for "Hamels Fohage." *Third Inspection Prize* (£2) to A. Weightman, for "Beverley Warrior's Gem." *First Milking Trial Prize* (£6) to E. Hollingworth, for "Knebworth Ceres Galatea."

Class 11.—SOUTH DEVON COW.—Entered in or eligible for the Herd Book of the South Devon Herd Book Society.—Cows entered in this Class must have yielded a minimum of 7,500 lbs. at five years old or over, or 5,000 lbs., at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—

First Inspection Prize (£7), *First Milking Trial Prize* (£8 10s.), *Extra Inspection Prize* (£5), and the South Devon Herd Book Society's Challenge Cup, to W. Hunt, for "Milkmaid 9th."

Class 12.—SOUTH DEVON HEIFER.—Born on or after 1st August, 1923. Entered in or eligible for the Herd Book of the South Devon Herd Book Society. No award, all animals absent.

Class 13.—DAIRY SOUTH DEVON COW.—Entered in or eligible for the Herd Book of the Recorded Dairy South Devon Cattle Society.—Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.—No award, all animals absent.

Class 14.—DEVON COW.—Entered in or eligible for the Herd Book or entered in the Supplemental Register of such Herd Book.—Cows entered in this Class must have yielded a minimum of 6,500 lbs., at five years old or over or 4,800 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First Inspection Prize* (£7), *First Milking Trial Prize* (£8 10s.) *Extra Inspection Prize* (£5) and the "Busk" Challenge Cup to W. D. Chick, for "Lovely 4th."

Class 15.—RED POLL COW.—Born on or previous to 1st August, 1921. Entered in or eligible for the Herd Book.—Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.—*First Inspection*

Prize (£7) to A. Preston Jones, for "Saham Leczie." *Second Inspection Prize* (£4), *Second Milking Trial Prize* (£5), and one-third of the Red Poll Cattle Society's Prize (£5) to the Duchess of Newcastle, for "Hardwick Hester." *Third Inspection Prize* (£2), *Third Milking Trial Prize* (£2 10s.), and *Extra Inspection Prize* (£5) to Sir H. Cunliffe-Owen, Bart., for "Bray Queen." *First Milking Trial Prize* (£8 10s.), to T. H. Sochon, for "Tendring Floss 34th."

Class 16.—RED POLL COW.—Born after 1st August, 1921, and previous to 1st August 1923. Entered in or eligible for the Herd Book.—*First Inspection Prize* (£7), *Third Milking Trial Prize* (£2 10s.) and one-third of the Red Poll Cattle Society's Prize (£5) to Lt.-Col. Sir Merrik R. Burrell, Bart., C.B.E., for "Knepp Prudence 4th." *Second Inspection Prize* (£4), *Second Milking Trial Prize* (£5), and one-third of the Red Poll Cattle Society's Prize (£5) to W. Hill, for "Basildon Hawthorn." *Third Inspection Prize* (£2) to Lady Chesham, for "Basildon Rosebud 2nd." *First Milking Trial Prize* (£8 10s.) to Major J. A. Morrison, D.S.O., for "Southdown Beltine."

Class 17.—RED POLL HEIFER.—Born on or after 1st August, 1923. Entered in or eligible for the Herd Book.—*First Inspection Prize* (£5), and the Red Poll Cattle Society's Prize (£5) to W. R. Glazebrook, junr., for "Lydiat Lass." *Second Inspection Prize* (£3) to Viscount Folkestone, for "Longford Desperation." *Third Inspection Prize* (£2) to Sir R. A. S. Black, for "Basildon Moelen." *First Milking Trial Prize* (£6) to Viscount Folkestone, for "Longford Courage." *Second Milking Trial Prize* (£3 10s.), to J. G. Gray, for "Basildon Queenliness." *Third Milking Trial Prize* (£2 10s.) to Major J. A. Morrison, D.S.O., for "Basildon Russett."

Class 18.—BLUE ALBION COW.—Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 8,000 lb. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First Inspection Prize* (£10), *First Milking Trial Prize* (£12), and *Extra Inspection Prize* (£5) to B. W. Smith, for "Elsenham Jessie." *Second Inspection Prize* (£5) and *Third Milking Trial Prize* (£3 10s.) to T. H. Swire & Sons, for "Mount Sweetheart." *Third Inspection Prize* (£3) and *Second Milking Trial Prize* (£6) to J. W. Towler, for "Megdale Emma."

Class 19.—BLUE ALBION HEIFER.—Born on or after 1st August, 1923. Entered in or eligible for the Herd Book. *First Inspection Prize* (£5) and *Second Milking Trial Prize* (£3 10s.) to A. Gillett, for "Ridgewardine May." *Second Inspection Prize* (£3) and *First Milking Trial Prize* (£6) to J. W. Towler, for "Mount Dairymaid 2nd." *Third Inspection Prize* (£2) to T. H. Swire & Sons for "Mount Polly 2nd."

Class 20.—WELSH BLACK COW.—Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 7,000 lbs. at five years old or over, or 5,250 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First Inspection Prize* (£7) and *Extra Inspection Prize* (£5) to Mrs. E. H. Spottiswoode, for "Gwern Clementine." *Second Inspection Prize* (£4), and *First Milking Trial Prize* (£8 10s.) to J. B. Jones, for "Bryncian Handy 6th."

Class 21.—AYRSHIRE COW.—Entered with a number, in the Herd Book or in the Appendices. Cows entered in this Class must have yielded a minimum of 7,500 lbs. at five years old or over, or 5,600 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First Inspection Prize* (£10), *First Milking Trial Prize* (£12), *Extra Inspection Prize* (£5) the "Rowallan," and "National Milk" Challenge Cups to J. Johnstone, for "Millantæ Mayflower." *Second Inspection Prize* (£5) to O. D. Moxted, for "Rigg Rosie."

Third Inspection Prize (£3) to Major C. R. Dudgeon, for "Cargen Holm Proud Lady 8th." Second Milking Trial Prize (£6) to Mrs. M. Mackay, for "Bruchag Pearl 7th." Third Milking Trial Prize (£3 10s.) to Sir T. Fowell Buxton, Bart., for "Catlinns Belinda."

Class 22.—AYRSHIRE HEIFER.—Registered or eligible for registration with a number in the Herd Book or in the Appendices. Born on or after 1st August, 1923. *First Inspection Prize (£5) and First Milking Trial Prize (£6) to M. Cochrane, for "Ryemuir Clara." Second Inspection Prize (£3) to W. A. Thompson, for "Moorfield Vanity 2nd." Third Inspection Prize (£2) to A. W. Montgomerie, for "West Gatehead Sheba." Second Milking Trial Prize (£3 10s.) to J. Cochrane, for "Byreholm Eliza." Third Milking Trial Prize (£2 10s.) to W. A. Thompson, for "Moorfield Sparkie."*

Class 23.—GUERNSEY COW.—Born on or previous to 1st August, 1921. Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old, either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First Inspection Prize (£7), Third Milking Trial Prize (£2 10s.), Extra Inspection Prize (£5) to W. Dunkels, for "Downe Fleur of Vimiera." Second Inspection Prize (£4). First Milking Trial Prize (£8 10s.), and "Stagenhoe" Challenge Cup, to the Misses Hargreaves, for "Lemon Gadfly." Third Inspection Prize (£2) and Second Milking Trial Prize (£5) to C. Norman, for "Hadham Goldstream 11th."*

Class 24.—GUERNSEY COW.—Born after 1st August, 1921, and previous to 1st August, 1923. Entered in or eligible for the Herd Book.—*First Inspection Prize (£5) and Third Milking Trial Prize (£2 10s.) to Major J. H. Drake, for "Cunningham Muriel." Second Inspection Prize (£3) to Sir Eric Hambro, K.B.E., for "Hayes Lady Cecilia 4th." Third Inspection Prize (£2) and Second Milking Trial Prize (£3 10s.) to E. E. Palmer, for "Jenny's Princess." First Milking Trial Prize (£6) to C. Norman, for "Hadham Nellie 14th."*

Class 25.—GUERNSEY HEIFER.—Born on or after 1st August, 1923. Entered in eligible for the Herd Book.—*First Inspection Prize (£5) and Second Milking or Trial Prize (£3 10s.) to Sir Eric Hambro, K.B.E., for "Kitty's Butterfat." Second Inspection Prize (£3) and First Milking Trial Prize (£6) to Sir Eric Hambro, K.B.E., for "Hayes Lola 6th." Third Inspection Prize (£2) to Sir Eric Hambro, K.B.E., for "Downe Princess Mary 7th." Third Milking Trial Prize (£2 10s.) to Mrs. L. Corbett, for "Hockley Princess May."*

Class 26.—JERSEY COW.—Born on or previous to 1st August, 1921. English or Island bred. Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old, either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society.—*First Inspection Prize (£7), and Extra Inspection Prize (£5) to G. Cross, for "Roberta's Star 2nd." Second Inspection Prize (£4) to R. W. Carson, for "Observer's Belle." Third Inspection Prize (£2) and the "Blythwood" Challenge Bowl to Mrs. Harry Briggs, for "Lily of the Valley." First Milking Trial Prize (£8 10s.) to R. W. Carson, for "Mastermans Golden Cidonia." Second Milking Trial Prize (£5) to Major A. W. Huntington, for "Marriette's Violet." Third Milking Trial Prize (£2 10s.) to E. Birkett, for "Clairette."*

Class 27.—JERSEY COW.—Born after 1st August, 1921, and previous to 1st August, 1923. English or Island bred. Entered in or eligible for the Herd Book.—*First Inspection Prize (£5) and Second Milking Trial Prize (£3 10s.) to Col. L. Gisborne, C.M.G., for "Cids Raleigh Spectre." Second Inspection Prize (£3) and First Milking Trial Prize (£6) to H. C. Pelly, for "Sixty Five." Third Inspection Prize (£2) to R. G. W. Berkeley, for "So Gay." Third Milking Trial Prize (£2 10s.) to G. Berry, for "Postmistress."*

Class 28.—JERSEY HEIFER. - Born or after 1st August, 1923. English or Island bred. Entered in or eligible for the Herd Book. *First* Inspection Prize (£5) to Mrs. Hayes Sadler, for "Golden Beech Daisy." *Second* Inspection Prize (£3) to Col. L. Gisborne, C.M.G., for "Lingen Oxford Jasmine." *Third* Inspection Prize (£2) to Col. L. Gisborne, C.M.G., for "Spring Fern." *First* Milking Trial Prize (£6) to Sir Harold Mackintosh, for "Countess Pauline." *Second* Milking Trial Prize (£3 10s.) to A. W. Ruggles Brise, for "Patsy's May 3rd." *Third* Milking Trial Prize (£2 10s.) to Mrs. Hayes Sadler, for "Gid's Petune."

Class 29.—KERRY COW. - Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 6,500 lbs. at five years old or over, or 4,800 lbs. at under five years old, either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£5), *Third* Milking Trial Prize (£2 10s.), *Extra* Inspection Prize (£5) to Capt. N. Zambra and C. Williamson-Milne, for "Hattingley High Kick." *Second* Inspection Prize (£3), *First* Milking Trial Prize (£6) and the British Kerry Cattle Society's Challenge Cup to Brig.-Gen. H. Palmer, for "Coquet Gipsy." *Third* Inspection Prize (£2) and *Second* Milking Trial Prize (£3 10s.) to Capt. N. Zambra and C. Williamson-Milne, for "Hattingley Haughty."

Class 30.—KERRY HEIFER. - Born on or after 1st August, 1923. Entered in or eligible for the Herd Book. - *First* Inspection Prize (£5) and *Third* Milking Trial Prize (£2 10s.) to B. W. A. Watney, for "Moonstone of Warren." *Second* Inspection Prize (£3) and *Second* Milking Trial Prize (£3 10s.) to J. W. Towler, for "Wadlands Flash Drops." *Third* Inspection Prize (£2) and *First* Milking Trial Prize (£6) to J. W. Towler, for "Wadlands Flash Mona."

Class 31.—DEXTER COW. - Entered in or eligible for the Herd Book. Cows entered in this Class must have yielded a minimum of 5,000 lbs. at five years old or over, or 3,750 lbs. at under five years old, either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.—*First* Inspection Prize (£5), and *Extra* Inspection Prize (£5) to T. A. Stephens, for "Just Found of Hookstile." *Second* Inspection Prize (£3) to Mrs. M. H. Neville, for "Barrow Buttercup 14th." *Third* Inspection Prize (£2), *First* Milking Trial Prize (£6) and the "Nutt" Challenge Cup to Mrs. H. P. May, for "Barbara."

Class 32.—DEXTER HEIFER. - Born on or after 1st August, 1923. Entered in or eligible for the Herd Book. Cancelled.

BUTTER TESTS.

SHORTHORNS, entered in Classes 1, 2, 3, 4, 5, 6, and 7. *First* Prize (£10 and Silver Medal) to S. Reading, for "Langford Damsel 21st." *Second* Prize (£5 and Bronze Medal) and the "Shorthorn Butter" Challenge Cup, to A. B. Croxon, for "Spot." *Third* Prize (£3) to R. Tustian, for "Groatow Blossom." *Fourth* Prize (£2) to Allen and Rogers, for "Grand Duchess Oxford 30th."

BRITISH FRIESIAN, entered in Classes 8, 9, and 10.—*First* Prize (£10 and Silver Medal) to W. G. White & Sons, for "Muntham Troublesome." *Second* Prize (£5 and Bronze Medal) to Strutt & Parker Farms, Ltd., for "Lavenham Seabreeze." *Third* Prize (£3) to Strutt & Parker Farms, Ltd., for "Lavenham Wallen 2nd." *Fourth* Prize (£2) to F. Sykes, for "Kingswood Ceres Daisy."

RED POLLS, entered in Classes 15, 16, and 17.—*First* Prize (£5 and Silver Medal) to T. H. Sochon, for "Tendring Floss 34th." *Second* Prize (£3 and Bronze Medal) to J. G. Gray, for "Seven Springs Bessy." *Third* Prize (£2) to Major J. A. Morrison, D.S.O., for "Basildon Russett."

AYRSHIRES, entered in Classes 21 and 22.—*First Prize* (£5 and Silver Medal) to J. Cochrane, for "Byreholm Buntie." *Second Prize* (£3 and Bronze Medal) to Sir T. Fowell Buxton, for "Catlinns Belinda." *Third Prize* (£2) to Mrs. M. Mackay, for "Bruchag Pearl 7th."

GUERNSEYS, entered in Classes 23, 24, and 25.—*First Prize* (£5 and Silver Medal) to the Misses Hargreaves, for "Lemon Gaddy." *Second Prize* (£3 and Bronze Medal) to C. Norman, for "Hadham Goldstream 11th." *Third Prize* (£2) to W. Dunkels, for "Downe Fleur of Vimiera."

JERSEYS, entered in Classes 26, 27 and 28.—*First Prize* (£5) E. J. C. S. Gold Medal and "National Butter" Challenge Cup to H. C. Pelly, for "Mastermaid." *Second Prize* (£3) and E. J. C. S. Silver Medal to R. W. Carson, for "Mastermans Golden Cidonia." *Third Prize* (£2) and E. J. C. S. Bronze Medal to Major A. W. Huntington, for "Marriette's Violet."

OTHER BREEDS entered in Classes 11 to 14, 18 to 20, and 29 to 31.—Prizes of £3 each to W. Hunt, for "Milkmaid 9th" (South Devon); W. D. Chick, for "Lovely 4th" (Devon); A. Gillett, for "Brampton Jewell" (Blue Albion); J. B. Jones, for "Bryncian Handy 6th" (Welsh Black); Brig.-Gen. H. Palmer, for "Coquet Gipsy" (Kerry); Mrs. H. P. May, for "Barbara" (Dexter); Prizes of £2 each to Lt.-Col. W. E. Harrison, for "Bramshall Margaret" (Blue Albion); Capt. N. Zambra and C. Williamson-Milne, for "Hattingley High Kick" (Kerry).

BULLS.

Class 33.—DAIRY SHORTHORN BULL.—Entered in or eligible for Coates' Herd Book, born previous to 1st August, 1924.—*First Prize* (£10) to L. Hignett, for "Kelmescott Imperialist 71st." *Second Prize* (£5) to E. G. G. Frost, for "Kenilworth Dairyman 2nd." *Third Prize* (£3) to P. E. de Clermont, for "Batsford Manager."

Class 34.—DAIRY SHORTHORN BULL.—Entered in or eligible for Coates' Herd Book, born on or after 1st August, 1924.—*First Prize* (£10) to Capt. the Hon. E. A. FitzRoy, for "Foxhill Songster." *Second Prize* (£5) to Capt. P. D. A. Courtenay, for "Brent Barrington Snowstorm." *Third Prize* (£3) to E. A. Smith, for "Longhills Lord Price." *Fourth Prize* (£2) to A. H. W. Osborne & Sons, for "Campsfield Squire 2nd."

Class 35.—BRITISH FRIESIAN BULL.—Entered in or eligible for the Herd Book, born on or after 1st August, 1924.—*First Prize* (£5) to Friend Sykes, for "Kingswood Beatty's Challenger."

Class 36.—RED POLL BULL.—Entered in or eligible for the Herd Book, born after 1st August, 1924, and on or prior to 1st August, 1925.—*First Prize* (£5) to Major J. A. Morrison, D.S.O., for "Basildon Conqueror." *Second Prize* (£3) to O. H. Smith, for "Combs Eros."

Class 37.—JERSEY BULL.—Entered in or eligible for the Herd Book, born on or after 1st August, 1923.—*First Prize* (£10) to G. Cross, for "Penshurst Coeur-de-Lion." *Second Prize* (£5) to Mrs. Hayes Sadler, for "Oxford." *Third Prize* (£3) to C. W. Hough, for "Lilac's Golden Cid."

SHE-GOATS.

MILKING COMPETITION FOR GOATS OF ANY VARIETY.

The "Dewar" Challenge Cup for Goat and Goatling awarded to Miss C. A. M. Booth, for "Atherstone Collette" and "Springfield Lealty (British Saanen.)"

Class 38.—SHE-GOAT qualified as "Star or 'Q' Star Milker."—*First Prize* (£6 and Silver Medal), the "Tremedda Selene" (Challenge Cup, the "Dewar" Challenge Trophy, the "Baroness Burdett-Coutts" Challenge Cup, and Challenge Certificate to Miss C. A. M. Booth, for "Atherstone Collette" (British Saanen). *Second Prize* (£3) to Mrs. A. Abbey, for "Didgemere Dream" (Anglo-Nubian Swiss). *Third Prize* (£1 10s.) to Miss C. A. M. Booth for "Springfield Unity" (British Saanen).

Class 39.—SHE-GOATS not eligible for Class 38.—*First Prize* (£6 and Silver Medal) to Mrs. A. Abbey, for "Didgemere Dogrose" (Anglo-Nubian Swiss). *Second Prize* (£3) to Mrs. A. Abbey, for "Didgemere Dulcette" (British Alpine). *Third Prize* (£1 10s.) to Mrs. A. Abbey, for "Didgemere Delia" (British Alpine).

INSPECTION CLASSES.

The "Riding" (Challenge Cup for best group of three Goats awarded to Mrs. A. Abbey, for "Didgemere Delilah" (British Alpine). "Didgemere Dream" (Anglo-Nubian Swiss), and "Didgemere Delia" (British Alpine).

Class 40.—SHE-GOAT, TOGGENBURG, entered in the Toggenburg Section of the Herd Book, or eligible for entry therein.—*First Prize* (£2 10s.), Breed Challenge Certificate, and the "Toggenburg" Challenge Cup to P. Wainwright, for "Fryston Senna." *Second Prize* (£1 5s.) to Mrs. Morecom, for "Berones."

Class 41.—SHE-GOAT, BRITISH TOGGENBURG AND BRITISH SAANEN.—*First Prize* (£2 10s.) to Miss C. A. M. Booth, for "Atherstone Collette." *Second Prize* (£1 5s.) to Miss C. A. M. Booth, for "Springfield Unity." *Third Prize* (15s.) to Miss C. Chamberlain, for "Champion Wistful of Westons."

Class 42.—SHE-GOAT, BRITISH ALPINE.—*First Prize* (£2 10s.) to Mrs. A. Abbey, for "Didgemere Delia." *Second Prize* (£1 5s.) to Mrs. A. Abbey, for "Didgemere Delilah." *Third Prize* (15s.) to Mrs. R. J. Browell, for "Pastime of Bashley."

Class 43.—SHE-GOAT, SAANEN.—Entered in or eligible for entry in the Swiss or Saanen Section of the Herd Book.—*First Prize* (£2 10s.) and Breed Challenge Certificate to Miss C. A. M. Booth, for "Springfield Fidelity." *Second Prize* (£1 5s.) to Mrs. R. J. Browell, for "Hartje." *Third Prize* (15s.) to Miss C. J. Arkell, for "Beechmead Linde."

Class 44.—SHE-GOAT, ANGLO-NUBIAN, being any Goat entered in the Anglo-Nubian Section of the Herd Book, or eligible for entry therein.—*First Prize* (£2 10s.) and Breed Challenge Certificate to R. Turner, for "Herne Bay Princess."

Class 45.—SHE-GOAT, ANY OTHER VARIETY, not eligible for previous Classes.—*First Prize* (£2 10s.) the British Goat Society's Challenge Cup and Challenge Certificate to Mrs. A. Abbey, for "Didgemere Dream" (Anglo-Nubian Swiss). *Second Prize* (£1 5s.) to Mrs. A. Abbey, for "Didgemere Deebce" (Anglo-Nubian Swiss). *Third Prize* (15s.) to Mrs. A. Abbey, for "Didgemere Dogrose" (Anglo-Nubian Swiss).

Class 46.—SHE-GOAT that is recorded under a recognised Milk Recording Society.—*First Prize* (£2 10s.) to Mrs. A. Abbey, for "Didgemere Dream" (Anglo-Nubian Swiss). *Second Prize* (£1 5s.) to Miss C. A. M. Booth, for "Atherstone Collette" (British Saanen). *Third Prize* (15s.) to Mrs. A. Abbey, for "Didgemere Deebce" (Anglo-Nubian Swiss).

Class 47.—GOATLING, TOGGENBURG AND BRITISH TOGGENBURG.—Over one year but not exceeding two years.—*First Prize* (£2 10s.) to Mrs. M. J. Rutter, for "Raydon Aerial." *Second Prize* (£1 5s.) to P. Wainwright, for "Fryston Sally." *Third Prize* (15s.) to Miss Alexander, for "Stockwell Coral."

- Class 48.—GOATLING, BRITISH ALPINE.—Over one year, but not exceeding two years.—*First Prize* (£2 10s.) and B.G.S. Bronze Medal to Miss C. Chamberlain, for "Whimsical of Westons." *Second Prize* (£1 5s.) to Lady Forteviot, for "Dupplin Darling." *Third Prize* (15s.) to Mrs. A. Abbey, for "Priestess of Bashley."
- Class 49.—GOATLING, SAANEN or BRITISH SAANEN.—Over one year, but not exceeding two years.—*First Prize* (£2 10s.) to Miss C. A. M. Booth, for "Springfield Lealty." *Second Prize* (£1 5s.) to Mrs. R. E. Wroughton, for "Lucretia." *Third Prize* (15s.) to Miss E. Skidmore, for "Heddon Symbol."
- Class 50.—GOATLING, ANGLO-NUBIAN.—Entered in or eligible for entry in the Anglo-Nubian Section of the Herd Book.—Over one year, but not exceeding two years.—*First Prize* not awarded. *Second Prize* (£1 5s.) to R. Turner, for "Herne Bay Vallonna."
- Class 51.—GOATLING, ANY OTHER VARIETY.—Not eligible for previous Classes. Over one year, but not exceeding two years.—*First Prize* (£2 10s.) to Miss Alexander for "Stockwell Tyclette" (Anglo-Nubian Swiss). *Second Prize* (£1 5s.) to Mrs. A. Abbey, for "Didgemere Day" (Anglo-Nubian Swiss). *Third Prize* (15s.) to Miss Pope, "Proverb of Bashley." (Anglo-Nubian Swiss).

CHEESE.

- Class 52.—STILTON (6 Cheeses).—*First Prize* (£7) and the Lord Mayor's Champion Cup, to The Colston Bassett and District Dairy, Ltd. *Second Prize* (£4) to The Misses M. F. & J. Webster. *Third Prize* (£2) to The Harby Farmers' Dairy, Ltd.
- Class 53.—STILTON (18 Cheeses).—*First Prize* (£10 and Silver Medal), to The Colston Bassett and District Dairy, Ltd. *Second Prize* (£5) to The Harby Farmers' Dairy, Ltd. *Third Prize* (£3) to The Cropwell Bishop Dairy Co., Ltd.
- Class 54.—CHEDDAR TRUCKLES (6 Cheeses).—*First Prize* (£7) to B. Chinn. *Second Prize* (£4) to W. H. Collins. *Third Prize* (£2) to F. Portch.
- Class 55.—CHEDDAR (4 Cheeses).—*First Prize* (£7) and the "N. K. J." Challenge Cup to S. T. White. *Second Prize* (£4) to A. H. Stevenson. *Third Prize* (£3) to E. Marsh. *Fourth Prize* (£2) to G. R. Cole. *Fifth Prize* (£1) to J. P. Hunter.
- Class 56.—CHEDDAR (12 Cheeses).—*First Prize* (£15 and Silver Medal), to A. H. Hunt. *Second Prize* (£10) to S. T. White. *Third Prize* (£7) to T. Durden. *Fourth Prize* (£5) to F. G. Nurse & Sons. *Fifth Prize* (£3) to F. Portch.
- Class 57.—COLONIAL CHEDDAR, Coloured or Uncoloured (4 Cheeses not less than 60 lbs. each). *First Prize* (Gold Medal) and the "Hansen" Challenge Trophy to J. T. Moxham. *Second Prize* (Silver Medal) to W. C. Taylor. *Third Prize* (Bronze Medal) to H. E. Donnelly.
- Class 58.—CHESHIRE (12 Cheeses).—*First Prize* (£15), the "Robert Barbour" Prize (£5) and the "Fullwood & Bland" Challenge Cup to O. Hesketh. *Second Prize* (£10) to W. E. Moore. *Third Prize* (£7) to G. Sutton. *Fourth Prize* (£5) to T. E. Beckett. *Fifth Prize* (£3) to E. A. Cookson.
- Class 59.—CHESHIRE (4 Coloured Cheeses, not less than 40 lbs. each).—*First Prize* (£7) to P. H. Walley. *Second Prize* (£4) to W. E. Moore. *Third Prize* (£2) to B. T. Dutton.
- Class 60.—CHESHIRE (4 Uncoloured Cheeses, not less than 40 lbs. each).—*First Prize* (£7) to O. Hesketh. *Second Prize* (£4) to W. H. Hobson. *Third Prize* (£2) to P. H. Walley.

- Class 61.—**CHEESHIRE** (4 Cheeses, not less than 40 lbs. each).—Open only to those who have never won a Prize for Cheshire Cheese at any Show of the British Dairy Farmers' Association. *First Prize* (£5) to J. H. Williams. *Second Prize* (£3) to T. E. Beckett. *Third Prize* (£2) to B. T. Dutton.
- Class 62.—**FACTORY**.—To be manufactured at and exhibited by a recognised Cheese Factory dealing with a minimum of 500 gallons of milk daily (10 Cheeses, any Variety, not less than 28 lbs. each). *First Prize* (£7) to The Kilmaurs Dairy Association, Ltd. *Second Prize* (£4) to The Ruyton Co-operative Dairies, Ltd. (Ruyton). *Third Prize* (£2) to C. M. Hallett. *Fourth Prize* (£1) to The Ruyton Co-operative Dairies, Ltd. (Bascchurch).
- Class 63.—**LEICESTER** (4 Cheeses).—*First Prize* (£4) to J. Harrison. *Second Prize* (£3) to The East Anglian Institute of Agriculture. *Third Prize* (£2) to The British Dairy Institute.
- Class 64.—**LANCASHIRE** (4 Cheeses).—*First Prize* (£4) to W. Duckworth. *Second Prize* (£3) to T. Butler. *Third Prize* (£2) to J. Exton.
- Class 65.—**DERBY** (4 Uncoloured Cheeses, not less than 25 lbs. each). *First Prize* (£4) to J. Harrison. *Second Prize* (£3) to The British Dairy Institute. *Third Prize* (£2) to The Cheddar Valley Dairy Co., Ltd.
- Class 66.—**DOUBLE GLOSTER** (4 Cheeses, from 26 lbs. to 30 lbs. each, total weight not to exceed 120 lbs.). *First Prize* (£4) to E. F. Jones. *Second Prize* (£3) to The Cheddar Valley Dairy Co., Ltd. *Third Prize* (£2) to Miss H. M. Naish.
- Class 67.—**SINGLE GLOSTER** (4 Cheeses, from 13 lbs. to 15 lbs. each, total weight not to exceed 60 lbs.).—*First Prize* (£4) to Mrs. W. Haine. *Second Prize* (£3) to E. F. Jones. *Third Prize* (£2) to Miss H. M. Naish.
- Class 68.—**CAERPHILLY** (4 Cheeses, not exceeding 8 lbs. each).—*First Prize* (£4) to W. Carey. *Second Prize* (£3) to The Cheddar Valley Dairy Co., Ltd. *Third Prize* (£2) to T. G. Collings.
- Class 69.—**WENSLEYDALE** (6 Cheeses, Blue-moulded).—*First Prize* (£4) to J. M. Nuttall & Co., Ltd. *Second Prize* (£3) to A. Rowntree & Son (Coverham). *Third Prize* (£2) to A. Rowntree & Son (Masham).
- Class 70.—**SMALLHOLDER PRESSED** (Long Keeping) (2 Cheeses not exceeding 8 lbs. each).—*First Prize* (£3) the "Walker" Challenge Cup and the Lord Mayor's Champion Cup to W. J. Wareham. *Second Prize* (£2) to Mrs. E. Gadd. *Third Prize* (£1) to Miss C. S. Gaisford. *Fourth Prize* (10s.) to F. Portch.
- Class 71.—**SMALLHOLDER PRESSED** (Quick Ripening) (2 Cheeses, not exceeding 8 lbs. each).—*First Prize* (£3) and the "McWilliam" Fruit Dish to Miss H. M. Naish. *Second Prize* (£2) to H. Stainer. *Third Prize* (£1) to Mrs. E. Gadd. *Fourth Prize* (10s.) to Mrs. L. T. Morris.
- Class 72.—**SMALL CHEDDAR** (2 Cheeses, made at home, from 8 lbs. to 10 lbs. each).—Open to pupils who have attended County Travelling Cheese Schools during 1925 or 1926.—*First Prize* (£3) to Miss K. M. Preece. *Second Prize* (£2) to Miss C. S. Gaisford. *Third Prize* (£1) to Miss E. Hulands. *Fourth Prize* (10s.) to Miss M. Haine.
- Class 73.—**SMALL CHESHIRE** (2 Cheeses, made at home, from 8 lbs. to 10 lbs. each).—Open to pupils who have attended County Travelling Cheese Schools during 1925 or 1926.—*First Prize* (£3) to S. Shaw. *Second Prize* (£2) to Miss E. Barratt. *Third Prize* (£1) to J. Gerrard. *Fourth Prize* (10s.) to A. P. Sadler.

Class 74.—INTER-COUNTY COMPETITION.—FOR THE BEST COLLECTION OF SMALL-HOLDER CHEESES made by the persons who have received instruction in Cheesemaking at a County Council Travelling Cheese School during 1923-1926. The Head Teacher or County Organiser in each County to make the entry, which shall consist of six individual Competitors whose names shall be stated at the time of entry. Each Competitor's Exhibit shall consist of four cheeses—manufactured in Competitor's own dairies—of not more than 8lbs. each in weight, and the number of distinct varieties and types are taken into consideration when making Awards. The prizes to be allocated: One half to the successful Competitors and one half to the County Teacher or Teachers. A Certificate of Merit will be awarded by the British Dairy Farmers' Association to each individual competitor receiving a Prize. Cancelled.

Class 75.—CREAM CHEESE, made from pure Cream only. No Milk or Curd to be added (6 Cheeses).—*First Prize* (£1) to Capt. L. Learmonth. *Second Prize* (10s.) to The Rt. Hon. Sir F. Halsey, Bart.

Class 76.—UNRIPENED SOFT CHEESE, other than Cream Cheese. Made direct from Milk (4 Cheeses).—*First Prize* (£1) to S. E. Butler. *Second Prize* (10s.) to F. Webster.

COLLECTION OF PRODUCE.

Class 77.—Open only to Women's Institutes To consist of 2 lbs. Fresh Butter, 1 lb. Cream (raw or scalded) and 2 dozen Eggs. The Collection to be packed in a box and sent to the Show by Parcel Post. Packages taken into consideration when making awards.—*First Prize* (£5) to The East Bridgford Women's Institute. *Second Prize* (£3) to The Wilby Women's Institute. *Third Prize* (£2) to The Epperstone Women's Institute.

BACON.

Class 78.—Rolled, Pale Dried with Skin on, cured on the Farm or in the Home.—Cancelled.

Class 79.—SMOKED (4 sides, mild cured in Wiltshire style, with ham attached).—*First Prize* (£5) to J. R. Johnson & Son. *Second Prize* (£3) to The West Somerset Dairy & Bacon Co., Ltd.

Class 80.—PALE DRIED (4 sides, mild cured in Wiltshire style, with ham attached).—*First Prize* (£5) to J. R. Johnson & Son. *Second Prize* (£3) to M. Venner & Sons, Ltd.

Class 81.—TWO SIDES OF BACON SMOKED, TWO SIDES OF BACON PALE DRIED, TWO HAMS SMOKED AND TWO HAMS PALE DRIED (the weight of the sides not less than 56 lbs. and not more than 68 lbs. each; the hams not less than 12 lbs. and not more than 20 lbs. each).—*First Prize* (£7 7s.) to The Herts. & Beds. Bacon Factory. *Second Prize* (£3 3s.) to J. R. Johnson & Son. *Third Prize* (£2 2s.) to M. Venner & Sons, Ltd.

Class 82.—BACON PIGS (6 pigs entered by their respective Breed Societies).—Prize (The "Whitley" Challenge Cup) and the "Harris" Challenge Cup, to the Gloucestershire Old Spots Pig Society.

Class 83.—BACON PIGS, PEDIGREE (2 pigs entered by Breeders).—*First Prize* (The "Beale" Challenge Cup) to W. H. Middle (Gloucestershire Old Spots). *Second Prize* (£3) to Bennett & Howard (Gloucestershire Old Spots). *Third Prize* (£2) to Major-Gen. R. L. Mullens, C.B., (Large White).

Class 84.—BACON PIGS.—FIRST CROSS (2 pigs entered by Breeders).—*First Prize* (The "Bledisloe" Bacon Challenge Cup) to H. H. Pickford (Large White and Large Black). *Second Prize* (£3) to Lord Bledisloe, K.B.E. (Large White and Large Black). *Third Prize* (£2) to The Cathedral Dairy (Middle White and Large White).

Class 85.—COLONIAL (4 sides).—*First Prize* (Silver Medal) and *Second Prize* (Bronze Medal) to The Farmers' Co-operative Bacon Factory, Ltd.

HAMS

Class 86.—PALE DRIED (4 hams, long cut, of Winter or Spring cure, not over 14 lbs. weight).—*First Prize* (£5) to W. H. Smart & Co., Ltd. *Second Prize* (£3) to Marsh & Baxter, Ltd.

Class 87.—PALE DRIED (4 hams, long cut, of Winter or Spring cure, over 14 lbs. weight).—*First Prize* (£5) to W. H. Smart & Co., Ltd. *Second Prize* (£3) to W. H. Smart & Co., Ltd.

Class 88.—SMOKED (4 hams, long cut, mild cured, not over 10 weeks cured, not over 15 lbs. weight).—*First Prize* (£5) to W. H. Smart & Co., Ltd. *Second Prize* (£3) to W. H. Smart & Co., Ltd.

Class 89.—PALE DRIED (4 hams, long cut, mild cured, not over 10 weeks cured, over 15 lbs. weight).—*First Prize* (£5) to Roberts & Birch, Ltd. *Second Prize* (£3) to W. H. Smart & Co., Ltd.

Class 90.—TWO HAMS, one Pale Dried and one Smoked (cured in the Farmhouse or Home; dealers and professional bacon curers not eligible).—Cancelled.

Class 91.—ONE HAM (home cured). Open only to Members of Women's Institutes. —Cancelled.

Class 92.—SELLING CLASS (2 hams, any variety).—*First Prize* (£2) to Roberts & Birch, Ltd. *Second Prize* (£1) to Marsh & Baxter, Ltd. *Third Prize* (10s.) to W. H. Smart & Co., Ltd.

BUTTER.

Class 93.—SLIGHTLY SALTED. Open only to farmers, their wives, sons and daughters, occupying not exceeding 100 acres, and who have never won a prize in the Butter Classes at any of the Association's Shows; 2 lbs. in 1-lb. lumps (brick shape).—*First Prize* (£3) to Miss P. L. Mudd. *Second Prize* (£2) to Miss M. F. Trimmingham. *Third Prize* (£1) to Miss J. Seldon. *Fourth Prize* (10s.) to Mrs. E. E. Penna.

Class 94.—PERFECTLY FREE FROM SALT (the produce of Channel Islands Cattle and their Crosses; 2 lbs. in 1-lb. lumps, brick shape).—*First Prize* (£3) to Mrs. H. Lewis. *Second Prize* (£2) to Mrs. W. Irving. *Third Prize* (£1) to The Earl of Guildford. *Fourth Prize* (10s.) to Mrs. H. B. Veale.

Class 95.—SLIGHTLY SALTED (the produce of Channel Islands Cattle and their Crosses; 2 lbs. in 1-lb. lumps, brick shape).—*First Prize* (£3) to J. Pierpont Morgan. *Second Prize* (£2) to Mrs. H. B. Veale. *Third Prize* (£1) to The Earl of Guildford. *Fourth Prize* (10s.) to Mrs. L. R. Mildon. *Fifth Prize* (5s.) to Mrs. Ward.

Class 96.—PERFECTLY FREE FROM SALT (the produce of Shorthorn and other Cattle and their Crosses, except Channel Islands and their Crosses; 2 lbs. in 1-lb. lumps, brick shape). *First Prize* (£3) to Miss R. James. *Second Prize* (£2) to Miss A. Bray. *Third Prize* (£1) to Mrs. R. J. Dunstan. *Fourth Prize* (10s.) to Mrs. W. Irving. *Fifth Prize* (5s.) to Mrs. G. E. Blackler.

Class 97.—SLIGHTLY SALTED (the produce of Shorthorn and other Cattle and their Crosses, except Channel Islands and their Crosses; 2 lbs. in 1-lb. lumps brick shape).—*First Prize* (£3) and the Lord Mayor's Champion Cup to Miss J. Seldon. *Second Prize* (£2) to Capt. L. Learmonth. *Third Prize* (£1) to Mrs. L. R. Mildon. *Fourth Prize* (10s.) to Mrs. W. Irving. *Fifth Prize* (5s.) to Miss A. Underwood.

Class 98.—SLIGHTLY SALTED, to be made from Scalded Cream only (2 lbs. in 1-lb. lumps, brick shape).—*First Prize* (£3) to Miss K. Rogers. *Second Prize* (£2) to Mrs. R. J. Dunstan. *Third Prize* (£1) to Miss A. Feby. *Fourth Prize* (10s.) to Mrs. W. Irving.

Class 99.—SLIGHTLY SALTED, in boxes of 12 bricks of 1-lb each.—*First Prize* (£3) to The Bruree Co-operative Creamery, Ltd. *Second Prize* (£2) to The Dromkeen Co-operative Creamery, Ltd. *Third Prize* (£1) to The Macamore Co-operative Dairy Society, Ltd. *Fourth Prize* (10s.) to The Kilkenny Co-operative Creamery, Ltd.

Class 100.—FREE FROM SALT (24-lb. boxes of 12 rolls).—*First Prize* (£3) to The Shanagolden Co-operative Dairy Society, Ltd. *Second Prize* (£2) to The Glenwilliam Co-operative Dairy Society, Ltd. *Third Prize* (£1) to The Ardagh Co-operative Society, Ltd.

Class 101.—MILD CURED (Slightly Salted in 24-lb. boxes of 24 rolls).—*First Prize* (£3) to The Ardagh Co-operative Dairy Society, Ltd. *Second Prize* (£2) to Adams Dairies (Wholesale). *Third Prize* (£1) to The Dromkeen Co-operative Creamery. *Fourth Prize* (10s.) to The Bruree Co-operative Creamery, Ltd.

Class 102.—CURED (Slightly Salted, 28 lbs.).—*First Prize* (£3) to The Shanagolden Co-operative Dairy Society, Ltd. *Second Prize* (£2) to The Bruree Co-operative Creamery, Ltd. *Third Prize* (£1) to The Kilkenny Co-operative Creamery, Ltd. *Fourth Prize* (10s.) to The Drumcliffe Co-operative Dairy Society, Ltd.

Class 103.—CURED (56 lbs.).—*First Prize* (£3) to The Bruree Co-operative Creamery, Ltd. *Second Prize* (£2) to The Shanagolden Co-operative Dairy Society, Ltd. *Third Prize* (£1) to The Ardagh Co-operative Dairy Society, Ltd. *Fourth Prize* (10s.) to the Rathmore Co-operative Creamery, Ltd.

Class 104.—TWO POUNDS, made up in the most attractive form for table use.—*First Prize* (£3) to Mrs. G. E. Blackler. *Second Prize* (£2) to Miss E. Challenger. *Third Prize* (£1) to Miss H. M. Trenchard.

Class 105.—FANCY OR ORNAMENTAL DESIGN (with Foliage or other extraneous Decoration).—*First Prize* (£5) to Miss P. L. Mudd. *Second Prize* (£3) to Miss H. M. Trenchard.

COLONIAL BUTTER.

Class 106.—SALTED (one box containing not less than 56 lbs.).—*First Prize* (Gold Medal) to The Casino Co-operative Dairy Co., Ltd. *Two Second Prizes* (Silver Medals) to The South Australian Farmers' Co-operative Union Ltd. (Orrorroo Factory and Narracoorte Factory). *Three Third Prizes* (Bronze Medals) to The Queensland Farmers' Co-operative Co., Ltd.; The South Australian Farmers' Co-operative Union, Ltd., and Foley Bros., Ltd.

Class 107.—UNSALTED (one box containing not less than 56 lbs.).—*First Prize* (Gold Medal) to The Casino Co-operative Dairy Co., Ltd. *Two Second Prizes* (Silver Medals) to The Alstonville Co-operative Dairy Society, Ltd., and Foley Bros., Ltd. *Two Third Prizes* (Bronze Medals) to The Pambula Co-operative Creamery & Dairy Co., Ltd., and The South Wolumla Creamery Co., Ltd.

COLLECTION OF COLONIAL DAIRY PRODUCE.

Class 108.—To include Bacon, Dead Poultry and Eggs.—Prize (Gold Medal) to The Government of Ontario.

CREAM.

Class 109.—CLOTTED.—*First Prize* (£2 2s. and Silver Medal) to Mrs. E. A. Tinney. *Second Prize* (£1 1s. and Bronze Medal) to W. Beer.

Class 110.—OTHER THAN CLOTTED.—*First Prize* (£2 2s. and Silver Medal) to C. Swithinbank. *Second Prize* (£1 1s. and Bronze Medal) to A. Corrie.

BOTTLED FRUIT, VEGETABLES, AND JAMS.

Class 111.—SIX BOTTLES OF SOFT FRUIT, of not less than 4 Varieties (Rhubarb admitted).—*First Prize* (£2) to Miss E. M. Gunnell. *Second Prize* (£1) to Miss C. R. Swain. *Third Prize* (10s.) to Mrs. E. Caddick.

Class 112.—SIX BOTTLES OF STONE FRUIT, of not less than 4 Varieties (Apples and Pears admitted).—*First Prize* (£2) to Miss C. R. Swain. *Second Prize* (£1) to The Cathedral Dairy. *Third Prize* (10s.) to Mrs. J. Pantall.

Class 113.—THREE BOTTLES OF SOFT FRUIT, distinct. — *First Prize* (£1) to Mrs. E. Caddick. *Second Prize* (10s.) to Mrs. Turney. *Third Prize* (7s. 6d.) to Miss C. R. Swain.

Class 114.—THREE BOTTLES OF STONE FRUIT, distinct.—*First Prize* (£1) to Miss C. R. Swain. *Second Prize* (10s.) to Mrs. E. Caddick. *Third Prize* (7s. 6d.) to Mrs. Turney.

Class 115.—THREE BOTTLES OF STONE OR SOFT FRUIT, distinct, preserved in Syrup.—*First Prize* (£1) to Mrs. E. Caddick. *Second Prize* (10s.) to Mrs. J. Pantall. *Third Prize* (7s. 6d.) to Miss E. M. Gunnell.

Class 116.—SIX BOTTLES OF VEGETABLES, of not less than 4 Varieties (Tomatoes admitted).—*First Prize* (£2) to Miss C. R. Swain. *Second Prize* (£1) to Mrs. E. Caddick. *Third Prize* (10s.) to Mrs. J. Pantall.

Class 117.—THREE BOTTLES OF VEGETABLES, distinct.—*First Prize* (£1) to Miss E. M. Gunnell. *Second Prize* (10s.) to Miss C. R. Swain. *Third Prize* (7s. 6d.) to Mrs. H. Palmer.

Class 118.—THREE JARS OF JAM (1-lb. each, dissimilar, any Variety).—*First Prize* (£1) to The Cathedral Dairy. *Second Prize* (10s.) to Miss D. E. Williams. *Third Prize* (7s. 6d.) to Miss M. E. Shuter.

Class 119.—COMBINED EXHIBIT OF BOTTLED FRUITS, VEGETABLES, JAMS, FRUIT JELLIES, PICKLES AND CHUTNEYS, open only to Women's Institutes. To consist of 3 bottles of Soft Fruit, 3 bottles of Stone Fruit, 3 bottles of Vegetables, 3 1-lb. jars of Jam or Fruit Jelly, 3 jars of Pickles or Chutney. All exhibits to be shown in glass containers and to be of not less than two varieties.—*First Prize* (£5 and Silver Medal) to The St. Leonard's Women's Institute. *Second Prize* (£3) to The Loose Women's Institute. *Third Prize* (£2) to The Snape Women's Institute.

HONEY, WAX, &c.

Class 120.—SIX JARS OF LIGHT-COLOURED EXTRACTED HONEY (1-lb. each approximate weight).—*First Prize* (£1) to E. C. R. White. *Second Prize* (15s.) to J. S. Leigh. *Third Prize* (12s. 6d.) to E. D. Dear. *Fourth Prize* (10s.) to A. J. Harris.

- Class 121.—SIX JARS OF MEDIUM-COLOURED EXTRACTED HONEY, other than Heather Honey (1-lb. each approximate weight).—*First Prize* (£1) to Miss A. B. Flower. *Second Prize* (15s.) to G. F. Mence. *Third Prize* (12s. 6d.) to W. J. Goodrich. *Fourth Prize* (10s.) to E. D. Dear.
- Class 122.—SIX JARS OF DARK COLOURED EXTRACTED HONEY, including any Variety of Heather Mixture (1-lb. each approximate weight).—*First Prize* (£1) to Miss A. B. Flower. *Second Prize* (15s.) to J. S. Leigh. *Third Prize* (10s.) to W. Trinder.
- Class 123.—SIX JARS OF GRANULATED HONEY, of 1925 or any previous year (1-lb. each approximate weight).—*First Prize* (£1) to W. Trinder. *Second Prize* (10s.) to G. F. Mence. *Third Prize* (7s. 6d.) to Miss A. B. Flower.
- Class 124.—SIX SECTIONS OF HONEY, other than Heather (size $4\frac{1}{2}$ by $4\frac{1}{2}$, 1-lb. each approximate weight).—*First Prize* (£1) to Miss A. B. Flower. *Second Prize* (15s.) to W. C. Adlem. *Third Prize* (10s.) to Robson & Cessford.
- Class 125.—DISPLAY OF COMB AND EXTRACTED HONEY, of any year (approximately 100-lbs. in weight, shown on a space of 3 ft. 6 in. by 3 ft. 6 in. outside measurement).—*First Prize* (£5) to Miss A. B. Flower. *Second Prize* (£2) to F. C. Robertson. *Third Prize* (£1) to A. E. Warren.
- Class 126.—WAX (not less than 2-lbs. in 2 cakes only; the produce of the Exhibitor's Apiary; extracted and cleaned by the Exhibitor or his Assistants).—*First Prize* (15s.) to Miss A. B. Flower. *Second Prize* (10s.) to Mrs. G. Davies. *Third Prize* (7s. 6d.) to D. Jones & Son.
- Class 127.—WAX (not less than 3-lbs.; the produce of the Exhibitor's Apiary; extracted and cleaned by the Exhibitor or his Assistants; to be shown in shape, quality and package suitable for the retail trade).—*First Prize* (15s.) to Mrs. G. Davis.
- Class 128.—INTERESTING AND INSTRUCTIVE EXHIBIT OF A PRACTICAL OR SCIENTIFIC NATURE, connected with BEE CULTURE, not mentioned in the foregoing Classes.—*First Prize* (15s.) to Miss A. B. Flower, for Hive Indicator.
- Class 129.—THREE VESSELS OF COLONIAL EXTRACTED HONEY, as imported.—*First Prize* (Silver Medal) to The Ontario Beekeepers' Association. *Second Prize* (Bronze Medal) to The Ontario Beekeepers' Association.

ROOTS.

- Class 130.—SIX SPECIMENS OF GLOBE MANGOLDS, drawn from a crop of not less than two acres.—*First Prize* (£3) to W. Watts. *Second Prize* (£2) to H. F. Read. *Third Prize* (£1) to Exors. of A. D. Willcox.
- Class 131.—SIX SPECIMENS OF GOLDEN TANKARD MANGOLDS, YELLOW FLESHED, drawn from a crop of not less than two acres.—*First Prize* (£3) to W. Watts. *Second Prize* (£2) to D. Thomas. *Third Prize* (£1) to W. Jones.
- Class 132.—SIX SPECIMENS OF INTERMEDIATE MANGOLDS, drawn from a crop of not less than two acres. *First Prize* (£3) to W. Watts. *Second Prize* (£2) to D. Thomas. *Third Prize* (£1) to W. Jones.
- Class 133.—SIX SPECIMENS OF SWEDES, PURPLE TOP, drawn from a crop of not less than two acres.—*First Prize* (£3) to T. Walker. *Second Prize* (£2) to W. Watts. *Third Prize* (£1) to P. Perry.
- Class 134.—SIX SPECIMENS OF SWEDES, BRONZE TOP OR GREEN TOP, drawn from a crop of not less than two acres.—*First Prize* (£3) to J. Meikle. *Second Prize* (£2) to W. Humphreys. *Third Prize* (£1) to T. W. Turnbull.

- Class 135.—SIX SPECIMENS OF TURNIPS, White-fleshed, drawn from a crop of not less than two acres. *First Prize* (£3) to T. W. Turnbull. *Second Prize* (£2) to R. Paterson. *Third Prize* (£1) to W. Watts.
- Class 136.—SIX SPECIMENS OF TURNIPS, Yellow-fleshed, drawn from a crop of not less than two acres. *First Prize* (£3) to J. Brown. *Second Prize* (£2) to W. Humphreys. *Third Prize* (£1) to W. Walker.
- Class 137.—THREE SPECIMENS OF CABBAGE, drawn from a crop of not less than two acres.—*First Prize* (£3) to F. S. Mee. *Second Prize* (£2) to G. Gadsby. *Third Prize* (£1) to J. A. Wright.
- Class 138.—SIX SPECIMENS OF KOHL-RABI, drawn from a crop of not less than two acres.—*First Prize* (£3) to P. Perry. *Second Prize* (£2) to The Walthamstow Urban District Council. *Third Prize* (£1) to A. Steel.
- Class 139.—SIX SPECIMENS OF KALE, MARROW STEM, drawn from a crop of not less than two acres.—*First Prize* (£3) to W. Watts. *Second Prize* (£2) to R. Thomas. *Third Prize* (£1) to G. Gadsby.
- Class 140.—COLLECTION OF ROOTS, &c., FOR CATTLE-FEEDING IN WINTER. To consist of six specimens of not exceeding ten Varieties in as many distinct Types as possible.—*First Prize* (£5) to P. Perry. *Second Prize* (£3) to W. Watts. *Third Prize* (£2) to J. James.

INVENTIONS.

- Class 141.—ANY NEW APPARATUS OR INVENTION RELATING TO THE DAIRY INDUSTRY, OR ONE SHOWING DISTINCT AND PRACTICAL IMPROVEMENT ESPECIALLY AS TO SAVING LABOUR, not eligible for competition in any other Class, and not previously exhibited in competition at the Dairy Show. -- Gold Medal to R. L. Munday for Sanitary Glandless Pump. Silver Medal to Bratby & Hinchliffe, Ltd., for Crown Corking Machine; G. Sutherland Thomson & Co., for Butter Moulding and Wrapping Machine; Wallis Crown Cork Co., Ltd., for Wallis Safety Cap Seal; Milkfilers Ltd., for Automatic Filling Machine. Bronze Medal to Graham Enoch Manufacturing Co., Ltd., for "G.E.M." Bottle Filling and Capping Machine; G. S. Clayton for Bottle Filling and Measuring Machine.
- Class 142.—SMALL PLANT FOR WASHING AND STERILIZING BOTTLES, AND SUITABLE FOR FARMERS WITH HERDS not exceeding 30 Cows.—*First Prize* (£3 and Silver Medal) to G. S. Clayton. *Second Prize* (£2 and Bronze Medal) to Batford and Perkins, Ltd.
- Class 143.—SMALL ICE CREAM EQUIPMENT to deal with one to three gallons per hour, suitable for the use of Tenant Farmers and other small producers. No entry.
- Class 144.—REFRIGERATING PLANT capable of reducing the temperature of Milk to not less than 40°F. Suitable for Farmers with Herds of 30 to 50 Cows. *First Prize* (£3 and Silver Medal) to A. G. Enock & Co., Ltd.

JUNKET-MAKING CONTESTS.

- Class 145.—JUNKET MADE WITH MILK AND CREAM.
- SECTION A.—*First Prize* (£2) to Miss M. West. *Second Prize* (£1) to Miss R. E. Mitchell. *Third Prize* (10s.) to Miss E. M. Mortimer.
- SECTION B.—*First Prize* (£2) to Miss J. Ridler. *Second Prize* (£1) to Miss M. B. Mitchell. *Third Prize* (10s.) to Miss R. M. Gwillim.
- SECTION C.—*First Prize* (£2) to Miss A. Turner. *Second Prize* (£1) to Miss E. Holloway. *Third Prize* (10s.) to Miss D. Cane.
- Class 146.—CHAMPION CONTEST.—Prize (Silver Medal) to Miss J. Ridler.

BUTTER-MAKING CONTESTS.

Class 147.—Open to those who have never won a Prize at any Show wherever held.

SECTION A.—*First Prize* (£3) to Miss I. Jaques. *Second Prize* (£2) to Miss L. M. French. *Third Prize* (£1) to Miss M. Johnston.

SECTION B.—*First Prize* (£3) to Miss D. V. S. Lamb. *Second Prize* (£2) to Miss K. Cragg. *Third Prize* (£1) to Miss M. A. Griffiths.

SECTION C.—*First Prize* (£3) to Miss J. Seldon. *Second Prize* (£2) to Miss M. A. Hunt. *Third Prize* (£1) to Miss M. Martin.

Class 148.—Open to Students who have attended Classes at the British Dairy Institute, Reading, for not less than one month during the past two years.
—*First Prize* (£3) to Miss M. A. Hunt. *Second Prize* (£2) to Ralph Keen. *Third Prize* (£1) to Miss M. F. Griffiths.

Class 149.—Open Contest for Men and Women.

SECTION A.—*First Prize* (£3) to Mrs. J. Bolderston. *Second Prize* (£2) to Miss K. Pendray. *Third Prize* (£1) to Miss L. L. Tombs.

SECTION B.—*First Prize* (£3) to Miss M. J. Salmon. *Second Prize* (£2) to Miss D. Cane. *Third Prize* (£1) to Miss H. Morgan.

SECTION C.—*First Prize* (£3) to Miss J. Seldon. *Second Prize* (£2) to Miss E. Challenger. *Third Prize* (£1) to Miss P. L. Mudd.

SECTION D.—*First Prize* (£3) to Miss R. L. Gwillim. *Second Prize* (£2) to Miss S. E. Gillson. *Third Prize* (£1) to Mrs. A. Morgan.

SECTION E.—*First Prize* (£3) to Miss R. E. Mitchell. *Second Prize* (£2) to Miss M. West. *Third Prize* (£1) to Miss M. L. Baker.

Class 150.—Open to First Prize Dairy Show Winners of 1926.—*First Prize* (£3 and Silver Medal) to Miss R. E. Mitchell. *Second Prize* (£2) to Mrs. J. Bolderston. *Third Prize* (£1) to Miss R. M. Gwillim..

Class 151.—CHAMPION CONTEST (open to Winners of First Prizes in the preceding Classes or at any Shows of the British Dairy Farmers' Association, Champions of any year excepted).—*First Prize* (Gold Medal) to Miss J. Prichard. *Second Prize* (£3) to Miss M. K. Stratton. *Third Prize* (£2) to Miss R. E. Mitchell.

MILKERS' CONTESTS.

Class 152.—Open to Men and Women of 18 years and over.—*First Prize* (£7) to Miss N. Jones. Equal *Second Prize* (£3 10s. each) to P. N. Dodd and J. Turnock. *Fourth Prize* (£2) to T. Povah. *Fifth Prize* (£1) to Miss J. Johnson.

Class 153.—Open to Boys and Girls under 18 years.—*First Prize* (£7) to R. M. Peacock. *Second Prize* (£4) to Miss E. Maughan. *Third Prize* (£3) to Miss A. E. Chard. *Fourth Prize* (£2) to W. E. Bryant. *Fifth Prize* (£1) to Miss M. Brock.

Class 154.—CHAMPION CONTEST (open to First Prize Winners in preceding Classes or at the Shows of 1923, 1924, and 1925, of the British Dairy Farmers' Association, Champions of any year excepted).—Prize (Howard Cup, Gold Medal and £2) to Miss N. Jones.

COW-JUDGING CONTEST.

Class 155.—Open to Teams of Students from Agricultural Colleges, Farm Institutes and County Council Classes.—Prize (B.D.F.A. Challenge Bowl) to The Cornwall County Council and Bronze Medal to A. B. James, J. Ould and J. Pryor.

THE OBJECTS OF THE BRITISH DAIRY FARMERS' ASSOCIATION

are the improvement of

DAIRY STOCK AND DAIRY PRODUCE,

by encouraging the Breeding and Rearing of Stock for the special purpose of the Dairy; a larger and better production of Milk, Butter, Cheese, and Eggs; the Erection of Improved Dairy Buildings, and the Invention of New or Improved Dairy Utensils, Machinery, Implements, and Scientific Appliances. The Association also stimulates the Breeding and Rearing of Poultry, &c. By means of Papers in the Society's *Journal* (published annually), Annual Conferences in different dairy districts, Lectures, and Discussions, and in other ways, efforts are continually being made to disseminate a more thorough knowledge of Dairy husbandry. Moreover, prompt action is taken by the Association for the protection of the interests of Dairy Farmers in the event of their being threatened by legislation or by Departmental Orders.

Prizes to the value of about £3,500 are annually offered for competition at the Dairy Show, held at the Royal Agricultural Hall, Islington, London.

It is difficult to over-estimate the importance and need of greater attention being paid to the Dairy industry. It is admitted that by improved modes of managing Milk and its products, the wealth obtained from the Milch Cows of the country could be increased most materially. The Council, therefore, appeal to Agriculturists of all classes, and Dairy Farmers in particular, to become Members of the Association, and practically aid in developing its usefulness.

The advantages of Membership comprise :—

- 1.—A free pass to all the Society's Dairy Shows, available each day during the Exhibition, with the privilege of admitting free (by ticket) a friend on any one day.
- 2.—The privilege of participating, at specially low charges, in the Dairy Conferences organized by the Association at home or abroad.
- 3.—The Exhibition of Live Stock, Dairy Produce, and Utensils (for competition) at a reduced scale of fees to Life Members, and to Annual Members subscribing £1 per annum whose subscription for the past year and current year is paid.
- 4.—A copy (free by post) of the *Journal* of the Association, published annually.
- 5.—Analyses by the Analytical and Consulting Chemist, at low fees, of samples of milk, cream, butter, cheese, feeding stuffs, water, soil, manures, &c., and advice on dairy matters connected with his Department.

- 6.—Professional advice and assistance at a reduced scale of charges in any case of disease among the live stock of the farm.
- 7.—Examinations of plants and seeds by the Consulting Botanist on specially low terms.
- 8.—Examinations by the Consulting Pathological Bacteriologist for particular pathogenic or disease-producing organisms.
- 9.—Investigations by the Consulting Dairy Bacteriologist into the cause of trouble or taints in dairy produce.
- 10.—In any case of apparent hardship in connection with the administration of the Model Milk Clauses, Members are recommended to at once send details of such case to the Secretary, who will submit the matter to the Committee appointed to deal with such matters, after which advice and assistance will be given by the Association.

The Annual Subscription is £1, but Dairy Instructors and Students are admitted on payment of 10s. 6d. per annum. The latter sum entitles Dairy Instructors to all privileges, except the reduced fees for exhibition at the Shows.

Members' Chemical Privileges.

Free Analysis.—Each member, whose subscription for the current year is paid, is entitled to one analysis of a dairy product (paragraphs 1 to 9 below) free of charge. A stamped addressed envelope must be forwarded with the sample for the return of the report of the analysis.

Further analyses will be made by the Association's Consulting Chemist at the following reduced fees:—

1.—MILK (Fresh).					£	s.	d.
Estimation of Fat and Total Solids...	...	...	...	...	0	1	0
Estimation of Fat, Casein, Albumen, Sugar, and Ash	...	...	...	...	0	10	0
2.—MILK (Sour).							
Estimation of Fat and Total Solids	...	...	...	...	0	5	0
3.—SKIMMED MILK.							
Estimation of Fat and Total Solids...	...	...	...	...	0	5	0
4.—CONDENSED MILK.							
Estimation of Fat	...	...	...	...	0	5	0
Estimation of Fat, Casein, and Solids	...	...	...	...	0	10	0
Estimation of Cane Sugar (extra)	...	...	...	...	0	5	0
5.—HUMANISED MILK.							
Complete Analysis	...	...	...	...	1	1	0
6.—CREAM.							
Estimation of Fat	...	...	...	...	0	5	0
Estimation of Fat, Casein, and Solids	...	...	...	...	0	12	6
Examination for Foreign Fats (extra)	...	...	...	...	0	10	6
7.—BUTTER.							
Estimation of Water, Fat, Casein, and Ash	...	...	...	...	0	10	0
Examination for Foreign Fats (extra)	...	...	...	...	0	10	6
8.—CHEESE.							
Estimation of Water, Fat, Casein, and Ash	...	...	...	...	0	10	6
Examination for Foreign Fats (extra)	...	...	...	...	0	10	0
9.—RENNET.							
Examination of Strength	...	...	...	...	0	5	0

10.—CAKES AND MEALS.							£	s.	d.
Estimation of Oil only							0	5	0
Estimation of Oil, Albuminoids, Carbo-hydrates, &c. ...							0	15	0
11.—GRASS, SILAGE, ROOTS, &c.									
Estimation of Oil, Albuminoids, Carbo-hydrates, &c. ...							1	10	0
12.—MANURES.									
Estimation of Soluble Phosphoric Acid							0	5	0
Estimation of Soluble and Insoluble Phosphoric Acid ...							0	7	6
Estimation of Citric Soluble Phosphoric Acid							0	7	6
Estimation of Nitrogen							0	5	0
Estimation of Potash							0	7	6
13.—SOIL.									
Estimation of Lime							0	5	0
Analysis and Report							2	2	0
14.—WATER.									
Analysis for Drinking or Dairy Purposes							1	1	0
15.—POISONS.									
Examination of a Substance for Mineral Poisons ...							2	2	0
Examination for Organic Poisons (Alkaloids, &c.) ...							3	3	0
16.—CIDER AND FERMENTED DRINKS.									
Estimation of Alcohol							0	7	6
Estimation of Alcohol, Sugar, Acidity, &c.							0	15	0
17.—PRESERVATIVES.									
Examining a Substance for Boracic Acid or Salicylic Acid,									
&c., for each Substance sought							0	2	6
Estimation of the quantity of Boracic Acid							0	10	6
18.—CONSULTATION.									
For Letter in reply to Enquiry							Free		
For Report on a Subject							0	7	6
For Personal Interview							0	10	6
For Special Consultation							1	1	0

NOTE.—The Consulting Chemist will be prepared to quote reduced terms to members requiring a number of analyses at frequent intervals.

Instructions for Taking Fair Samples for Analysis.

Dairy Produce.—Milk should be sent in a well-corked 8-oz. clear bottle. The milk should quite fill the bottle. Butter or cheese, about 8 ounces; the former in a gallipot well tied down.

Soils.—A block of soil about four or five inches square, and nine inches deep, should be sent in a strong box by rail.

Artificial Manures.—Take a handful of manure out of at least half a dozen bags, mix these rapidly and thoroughly, breaking down all lumps. Forward about a pound of the mixture in a tin box, and retain the remainder. Samples of manure should be sent immediately after the delivery of the bulk, and before settling the account. All manures should be bought subject to analysis.

Feeding Materials.—Feeding cakes, meals, or grains: about a pound should be sent in a bag or box. Grass and hay: a bundle of a few pounds weight. Silage: a six-inch cubic block, packed closely in a box to keep it compressed.

Waters.—A Winchester quart glass-stoppered bottle should be procured from a druggist, well washed out with the water, then completely filled, the stopper tied securely down, and the bottle packed in a box and sent by rail.

N.B.—In order to prevent disappointment, the Chemist requests that, as far as possible, Members desiring to hold a personal consultation should make an appointment by letter. Between 10 and 4 are the hours most convenient. The fees for analyses of artificial manures and feeding stuffs are only applicable to Members who are not commercially engaged in their manufacture or sale. All communications intended for the Analytical and Consulting Chemist must be addressed direct to Dr. T. J. DRAKELEY, Ph.D., M.Sc., F.I.C., F.C.S., M.I.M.E., 28, Russell Square, London, W.C.1.

Members' Bacteriological Privileges.

Samples of dairy produce, &c., submitted for a bacteriological count, or for examination for *Bacillus Coli*, &c., should be forwarded to Dr. T. J. DRAKELEY, Ph.D., M.Sc. F.I.C., F.C.S., M.I.M.E., 28, Russell Square, W.C.1.

Examinations will be made at the following fees:—

MILK.	£	s.	d.
Bacteriological Examination of "Certified," "Grade A," or "Pasteurised" Milk under the Milk (Special Designations) Order, 1922	0	10	6
Cultural Examination for a particular organism	2	2	0
CREAM, BUTTER, CHEESE.			
Cultural Examination for a particular organism	2	2	0

Directions for Sending Samples.

Samples of milk (one pint) and cream (half pint) should be forwarded in wide-mouthed stoppered bottles which have previously been thoroughly cleaned, and then rinsed several times with very hot, almost boiling, water.

Butter is best sent in a $\frac{1}{2}$ -lb brick or roll, just as it was made up, wrapped in grease-proof paper, and packed in a box.

If the *Cheese* is small, send a whole one; otherwise forward a square block of not less than one pound, and not a wedge-shaped piece. Wrap in grease-proof paper and pack in a box.

Examinations for Pathogenic Organisms.

EXAMINATIONS BY DR. ANDREWES, Pathological Laboratory,
St. Bartholomew's Hospital, London, E.C. 1.

Members' Veterinary Privileges.

	£	s.	d.
Personal Consultation	0	10	6
Post-mortem Examination and Report	0	10	6
Consultation by Letter	0	5	0
Visit and Report, in case of an outbreak of disease, in addition to personal and travelling expenses, per day	2	2	0

Members' Botanical Privileges.

The Council have fixed the following rates of charge for the examination of Plants and Seeds for the *bonâ fide* and individual use and information of Members of the Association (not being Seedsmen), who are particularly requested to mention the kind of examination they require, *and to quote its number in the subjoined Schedule.*

No.	£	s.	d.
1.—A Report on the purity, and amount or nature of foreign materials, of a sample of seed	0	1	0
2.—A Report on the perfectness and germinating power of a sample of seed	0	1	0
Nos. 1 and 2 together	0	1	6
3.—Determination of the species of any weed or other plant, or of any epiphyte or vegetable parasite, with a report on its habits, and the means for its extermination or prevention	0	1	0
4.—Report on any disease affecting farm crops	0	1	0
5.—Determination of the species of a collection of natural grasses found in any district, with a report on their habits and pasture value	0	4	0

Instructions for Selecting and Sending Samples.

The utmost care must be taken to secure a fair honest sample. When possible, at least one ounce of grass and other small seeds should be sent, and two ounces of cereals or larger seeds. Grass seeds should be sent at least four weeks, and clover seeds two weeks before they are to be used. In collecting specimens of plants, the whole plant should be taken up, and the earth shaken from the roots. If possible, the plant must be in flower or fruit. They should be packed in a light box, or in a firm paper parcel. Specimens of diseased plants or of parasites should be forwarded as fresh as possible—either in a bottle, or packed in tinfoil or oil silk. All specimens should be accompanied with a letter specifying the nature of the information required, and stating any local circumstance (soil, situation, &c.) which, in the opinion of the sender, would be likely to throw light on the inquiry.

The charge for examination must be paid, in Postage Stamps or otherwise, at the time of application, and the carriage of all parcels must be prepaid. It must be distinctly understood that *no notice can be taken* of any application unless it is accompanied by the proper fee.

THE BRITISH DAIRY INSTITUTE, READING.

The British Dairy Institute was established at Aylesbury in 1888, by the British Dairy Farmers' Association, and several hundred Students were successfully trained there in different branches of dairy work. In order that Students might have an opportunity of combining with the practical study of dairying a more complete scientific instruction, the Institute was, in 1896, moved to Reading, and placed under the management of a Committee representing the British Dairy Farmers' Association and the University College, Reading.

The Institute contains large milk-receiving, butter-making, and milk-testing rooms; rooms for the manufacture of pressed, unpressed, and soft cheeses; and rooms for the ripening and drying of different varieties of cheese; besides reading, lecture, and common rooms. It is equipped with the best modern apparatus for the manufacture of dairy produce, including power-driven separating and butter-making plant, and cold storage plant.

The instruction given is both practical and theoretical, and is arranged to suit the requirements of those who need either elementary or advanced dairy instruction, or who wish to perfect themselves in the manufacture of any special variety of dairy produce. Instruction is provided for students who wish to specialize in Bacteriology or Chemistry applied to dairying.

The Institute is open throughout the year, except during the Winter Vacation of eight weeks, which commences about the middle of November.

The Courses at the Institute are open to men and women above the age of 16 years. Students may join at any time while the Institute is open, and for any period not less than a week, but those who desire to take a thorough short course in butter-making or cheese-making are recommended to attend the Six Months' or Three Months' Joint Course in Dairying.

The manufacture of hard-pressed and soft cheeses is taught during the whole of the time when the Institute is open, but Stilton and other blue-veined varieties are not made until May.

Instruction is given in butter-making, clotted-cream making, the testing and analysis of milk, the management of various types of separators, the handling and care of milk, and the preparation of starters, &c. Lectures and demonstrations are usually given in the afternoons, the mornings being chiefly devoted to practical dairy work.

Practical and theoretical instruction in butter-making and cheese-making (including hard-pressed, blue-veined, and soft cheese), £1 per week; £10 for three months; £18 for six months.

Practical and theoretical instruction in butter-making only, 10s. per week (or part of week).

A full Prospectus will be sent on application to the Secretary, British Dairy Institute, Reading.

FRED J. BULL,
Secretary, B.D.F.A.

28, Russell Square, London, W.C.1.

Fifty-first Half-yearly Report of the Council presented to the Members at the Meeting held at the Dairy Show, Royal Agricultural Hall, Islington, N. 1, on Wednesday, October 20th, 1926.

As will be seen from the attached Table, the entries for the 1926 Dairy Show are in excess of last year. There is a notable increase in the entry of Cheese, whilst the entry of Colonial Produce is the highest on record. Although Goats are 40 in excess of 1925, there is a slight decrease in the number of Cattle. New Inventions are again to the fore, and every inch of space for non-competitive exhibits has been reserved since last June.

The Annual Conference, which was to be held in France and to coincide with the International Dairy Congress in Paris, encountered obstacles at the outset. Nevertheless, a compact party had been gathered together for the tour when the Great Strike was launched, and in the period of uncertainty thus brought about the Council felt that the wisest course was to abandon the project.

In view of the fact that International Dairy Congresses have been found to be of the greatest value to the Industry in the countries in which they have been held, and that if such a Congress was to be held in this country it must be in 1928, your Council has taken active steps to promote a Congress for that year.

It is satisfactory to report that a Committee has been appointed with representatives from all branches of the Industry, the necessary Sub-Committees have been set up and invitations to attend the Congress are being sent out. The programme will include Paper-reading Conferences, visits to many dairying centres in Great Britain and Ireland and to centres where the methods of handling milk and of manufacturing milk products may be studied.

His Majesty The King has graciously consented to be the Patron of the Congress.

The members of the British Dairy Farmers' Association will be

glad to know that the organisation of the Congress will be carried out from the Offices of their Association.

The success which last year attended the Association's Stand at the Dairy Show has justified the Council in repeating the experiment, and it is hoped that a record number of members may thus this year be obtained. If each member does his or her best, satisfaction is assured.

The insatiable Reaper has dealt a double blow this year at the Industry, for ere the mind had realised the loss of that great pioneer, John Benson, Miss Dora G. Saker had sickened and been gathered in. To fill the vacancy on the Council caused by Mr. Benson's death, Mr. W. H. Hobson, of Nantwich, was elected by the Council, but as his period of Office expires this year you will note his name among those for re-election.

This year the Association is fortunate in that The Rt. Hon. Lord Kenyon, K.C.V.O., has kindly allowed his name to be submitted as President-elect, 1927, and in support of his election your vote will shortly be sought.

The following list of Vice-Presidents has been prepared and for which your approval will be asked :--

The Marquis of Crewe, K.G., Crewe Hall, Crewe.
Earl of Dartmouth, P.C., Patshull, Wolverhampton.
Viscount Elveden, C.B., M.P., 11, St. James's Square, S.W.1.
Lord Strachie, Sutton Court, Pensford, Bristol.
Major Lord O'Hagan, 16, Eaton Square, S.W.1.
Lord Desborough, G.C.V.O., Taplow Court, Taplow, Bucks.
Lord Bledisloe, P.C., K.B.E., Lydney Park, Glos.
Sir Gilbert Greenall, Bart., (C.V.O.), Walton Hall, Warrington.
S. Palgrave Page, J.P., 27, Oakwood Court, W.14.
G. Titus Barham, Sudbury Park, Wembley, Middlesex.
S. R. Whitley, J.P., Rookwood, Shinfield, Reading.
Major J. A. Morrison, D.S.O., Basildon Park, Reading.

In accordance with the Articles of Association the following members of the Council retire this year :--

Lt.-Col. Sir Merrik R. Burrell, Bart., Sussex.
S. Edwards, Monmouth.
J. T. H. Farmer, Bucks.
W. J. Grant, Monmouth.
W. H. Hobson, Cheshire.

W. F. Jessop, Oxon.
 R. Long, Bedfords.
 W. Nisbet, Lanarks.
 H. S. Holmes Pegler, Surrey.
 James Sadler, Cheshire.
 J. Gillard Stapleton, Middlesex.
 T. Willing, Devon.

With the exception of Sir Merrik R. Burrell, Bart., all are seeking re-election. However, the retirement, through ill-health, of that veteran, Mr. Primrose McConnell, creates a second vacancy, and in the filling of these two places members have the following choice :—

Grosvenor Berry (Dairy Farmer), Withers, Mount Bures, Bures, Suffolk, proposed by Mrs. Evelyn, seconded by Mrs. Ames.

Isaac Bidwell (Wholesale Provision Merchant), 61, Charterhouse Street, E.C.1, proposed by West Surrey Central Dairy Co., seconded by W. G. Lovell.

George F. Gosney (Secretary, National Association of Creamery Proprietors), Aldwych House, Aldwych, London, W.C.2, proposed by Alfred Rowntree, seconded by John Anderson.

Roger Fletcher Hearnshaw (Farmer), Fox Hill, Burton Joyce, Notts, proposed by S. Palgrave Page, J.P., seconded by Lt.-Col. Caddick.

William Rice (Secretary, Poultry Club), 3, Ludgate Broadway, London, E.C.4, proposed by Lord Dewar and C. N. Goode, seconded by Sir Gilbert Greenall, Bart., and Charles E. Brooke.

Mr. Herbert J. Page, of Messrs. Kemp, Chatteris, Nichols, Sendell & Co., will be proposed as the Association's official Auditor, with Messrs. P. Hay, H. E. Hughes, and W. E. Manchester, J.P., as Hon. Auditors.

By order of the Council,

B. RAVENSCROFT,

Secretary.

28, RUSSELL SQUARE,
 LONDON, W.C.1.

October, 1926.

THE FOLLOWING TABLE GIVES COMPARATIVE DETAILS OF THE ENTRIES AT THE DAIRY SHOW WITH THOSE OF THE PAST TWELVE YEARS.

	1911.	1912.	1913.	1914.	1915.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.
Cattle	222	210	286	234	204	292	384	455	515	539	473	470	449
Milking and Butter Tests	213	209	265	167	198	334	492	614	760	772	718	700	693
Goats...	81	105	110	85	116	115	109	101	91	67	72	48	78
Poultry	3,300	3,350	3,840	3,089	2,653	2,736	4,317	4,398	4,398	4,685	4,498	4,355	4,352
Pigeons	2,226	2,496	2,467	2,291	2,735	2,760	3,259	3,272	3,208	3,115	3,027	3,094	3,180
Cheese	249	343	395	301	271	342	462	406	418	488	486	459	489
Bacon and Hams	58	71	89	67	45	—	34	56	87	89	113	95	94
Butter	484	618	549	371	339	242	286	322	388	401	483	420	430
Cream	26	48	43	27	20	16	19	32	37	33	30	47	30
Skim-milk Bread, &c.	72	83	64	46	65	40	40	No class	No class	No class	No class	No class	No class
Honey, &c. ...	87	95	106	126	77	20	49	63	58	92	102	53	65
Bottled Fruits and Vegetables	—	—	—	—	—	—	45	25	26	53	65	33	56
New and Improved Inventions...	21	25	41	24	6	23	14	38	30	37	37	54	50
Roots	172	190	190	59	51	80	144	148	183	190	283	269	271
Buttermaking Contests	165	165	141	97	101	110	86	162	141	129	154	130	131
Milkers' Contests	153	119	137	85	82	77	80	98	44	43	56	51	47
Junket-making Contest	—	—	—	—	—	—	7	8	12	23	33	27	28
Collection of Colonial Produce	—	—	—	—	—	—	2	2	3	3	1	2	2
Cow-Judging Contest	—	—	—	—	—	—	—	—	—	7	4	8	10
Collection of Produce	—	—	—	—	—	—	—	—	—	—	8	18	9
	7,529	8,127	8,723	7,069	6,963	7,187	9,829	10,150	10,399	10,766	10,643	10,333	10,464

FIFTY-FIRST ANNUAL REPORT OF THE COUNCIL

For the Year ended 31st December, 1926,

TO BE PRESENTED TO THE GENERAL MEETING
OF MEMBERS ON WEDNESDAY, MARCH 2nd, 1927.

In submitting this fifty-first Annual Report and Statement of Accounts, the Council is again pleased to record the continued success of the Association, both as regards Membership and Finance. At the close of the year the Membership totalled 1,714, of which 1,564 were Annual and 150 Life Members, together with 19 Affiliated Societies. Whilst these figures show an increase of 91 Members and four Affiliated Societies, it is sincerely hoped that each Member will introduce a friend during the coming year and so place the Association on a still firmer basis.

During the year the constitution of the Council has been changed by the lamented death of Mr. John Benson and the retirement of Lt.-Col. Sir Merrik R. Burrell, Bart., and Mr. Primrose McConnell (the latter unfortunately through ill-health). To fill these vacancies Mr. Grosvenor Berry, Mr. R. Fletcher-Hearnshaw and Mr. W. H. Hobson have, by the votes of Members, been elected to the Council.

Appended to this Report is the Financial Statement which may be regarded as highly satisfactory. The Invested Funds being £14,335, which is an increase of £3,000 over last year.

The Dairy Show, which is one of the outstanding features of the Association's activities, was again a complete success, both entries and visitors exceeding those of last year.

The Council, being of opinion that there should be a Championship Trophy for Cattle at the Dairy Show, decided to award a Supreme Individual Championship Challenge Trophy provided from the Association's funds, and this was offered for the first time this year.

All animals, irrespective of being milked thrice or twice daily, competed for all Trophies and Prizes and in most cases those milked thrice were successful.

As a result of Examinations held at the British Dairy Institute, Reading; Studley College, Warwickshire; East Anglian Institute, Chelmsford; and Gannington Court Farm Institute, Bridgwater; 34

Diplomas, with Silver Medals, 66 Butter-making and 56 Cheese-making Certificates have been awarded.

The Medal Distribution Scheme still remains popular, as will be observed from the following table which gives particulars of Medals granted last year :—

	Gold.	Silver.	Bronze.
Dairy Cattle	—	8	7
Produce	—	2	4
Butter-making... ..	—	3	1
Clean Milk Competitions ...	5	1	1
Cow Judging Contests	—	1	3
Dairy Herds Competition ...	—	1	1
Milkers' Contests	—	2	2
	5	18	19

It is pleasing to report that the Committee which was appointed with representatives from all branches of the Dairying Industry to draw up a programme for the International Dairy Congress to be held in this country in 1928 is still very active in its endeavours to make the Conference a great success.

Mr. J. Gillard Stapleton having kindly presented a Cup to the Association to be used as an instrument to encourage improved methods of milk production in the Counties of England and Wales, the Council decided to institute an Inter-County Clean Milk Competition, the Cup to be held for one year by the County making the greatest progress. In addition £109 is being offered by the Association in money prizes, and it is pleasing to report that 18 counties have decided to compete.

The Council has given further consideration to the question of Tuberculin Tested Cattle at the Dairy Show, and is now ascertaining the views of the various Breed Societies upon the matter.

It is, with deep regret, the Council has to announce the death of the Secretary, Mr. B. Ravenscroft, who passed away on December 13th. Mr. Ravenscroft joined the Association in 1881 and was elected to a seat on the Council in 1907, which position he held until undertaking the Secretarial duties in the early part of the Great War. For many years he acted as the Association's Hon. Auditor, and also undertook the duties of Finance and Refreshment Steward at many Dairy Shows. His genial presence, sound judgment, foresight and great experience in finance will be greatly missed from the Council Chamber and Office.

By order of the Council,
 FRED J. BULL,
Secretary.

The British Dairy

FINANCIAL

Dr.

GENERAL INCOME AND EXPENDITURE

WITH COMPARATIVE

EXPENDITURE.				1926.		1925.	
	£	s.	d.	£	s.	£	s.
Education and Examinations—							
Reading	205	4	1			194	2 7
Chelmsford	15	3	0			13	1 5
Studley	12	11	8			14	19 0
Somerset	12	16	2			12	5 2
				245	14 11	234	8 2
Journal				572	16 0	582	12 8
Medal Scheme				70	14 0	28	10 4
Bank Charges				30	9 4	24	14 4
Rent				240	0 0	240	0 0
Prizes to Exhibitors				3,524	8 11	3,603	19 11
Sales of Exhibits				1,461	11 6	1,363	13 1
Dairy Show—Hire of Hall, Fittings, Postage and Sundry Expenses				6,978	9 3	6,791	4 0
Catalogues				945	15 6	888	12 9
Salaries				1,072	18 4	1,080	0 0
Wages and Labour				1,689	2 7	1,663	8 5
Printing, Stationery, Postage, and Sundry Office Expenses				275	6 6	275	12 1
Railway Fares for Attendance at Council Meetings				179	1 7	169	1 9
Auditors' Fees and Officers' Retaining Fees				129	13 4	157	17 6
Depreciation of Furniture				25	11 8	24	8 0
Income Tax, 1925-6				26	16 0	36	9 0
Donations—	£	s.	d.				
National Institute for Research in Dairying						1,000	0 0
International Dairy Congress	200	0	0			—	
British Dairy Institute	100	0	0			—	
National Milk Publicity Council	50	0	0			—	
Royal Agricultural Benevolent Society	10	10	0			10	10 0
University of Reading Library	10	0	0			—	
Central Chamber of Agriculture	5	0	0			5	0 0
				375	10 0	1,015	10 0
Corporation Duty				32	13 5	82	9 8
Stands at Agricultural Shows				40	0 0	102	4 3
Entry Fees returned on account of Foot and Mouth Disease				11	10 0	65	0 0
Conference Account				19	10 5	—	
BALANCE, being excess of Income over Expenditure	1,846	14	7			792	6 6
				£19,794	7 10	£19,222	2 5

Farmers' Association.**STATEMENTS.****ACCOUNT for the Year ended December 31st, 1926.****Cr.****STATEMENT FOR 1925.**

INCOME.						1926.		1925.	
						£	s. d.	£	s. d.
Subscriptions	..	...	...	...	...	1,396	7 3	1,436	8 6
Examinations—				£	s. d.				
Reading ...	...	...	...	74	7 6			79	5 0
Chelmsford	...	...	...	15	3 0			13	1 5
Studley ...	...	...	...	12	11 8			14	19 0
Somerset	...	..	...	12	16 2			12	5 2
						114	18 4	119	10 7
Journal	...	...	...	...	...	115	11 7	149	6 11
Contributions to Prize Fund	...	...	...	...	...	374	4 0	419	17 6
Entry Fees, Competitive and Non-Competitive	...	...	...	...	...	9,348	16 9	9,079	12 11
Sales of Exhibits	...	...	...	...	...	1,654	11 9	1,523	15 2
Admission Money	...	...	...	...	...	4,355	18 5	4,239	5 3
Sales in Working Dairy	...	...	...	...	...	647	17 11	584	19 5
Catalogue Sales and Advertisements	...	...	...	...	...	1,140	16 5	1,105	5 0
Interest on Investments—									
Taxed before receipt	...	...	...	499	4 0			408	13 3
Untaxed before receipt	...	...	...	100	0 0			100	0 0
Bank Deposit	...	...	...	34	10 5			34	7 11
						633	14 5	543	1 2
Hire of Council Room	...	...	...	...	...	11	11 0	21	0 0
						£19,794	7 10	£19,222	2 5

British Dairy Farmers' Association.

MEDAL SCHEME.

Special Prizes at Educational Institutions and Country Shows.

The Council of the British Dairy Farmers' Association is prepared to consider applications from Educational Centres and Approved Societies in the United Kingdom for their Gold, Silver, and Bronze Medals to be awarded in connection with dairying and dairy farming under the following conditions, viz. :—

1. All applications must be made on our official form and must clearly state the object for which the Medal or Medals are required.
2. Only one application from any Institution or Society can be considered in any one year.
3. The application must be repeated annually if Medals are again required.
4. A copy of the Proposed Prize List, showing the Conditions of the Award of the Medal and the name of the judge, should accompany the application, and the offer of a Medal cannot be confirmed until the Prize List has been approved.
5. The British Dairy Farmers' Association stipulates that no entry fee shall be charged in respect of these Medals, they being offered as Special Extra Prizes.
6. Notification of the award, with the winner's full name and address, to be forwarded to the Secretary, British Dairy Farmers' Association, 28, Russell Square, London, W.C.1, within 14 days of the award being made.
7. A person may not receive more than one Medal under this Scheme for the same subject or exhibit during any one year.

STUDENTS.—The B.D.F.A. Silver Medal for Students is reserved for those who have obtained the B.D.F.A. Diploma.

The B.D.F.A. Bronze Medals may be awarded on application to Students gaining the first position in short course Examinations and the prospectus of the course must be forwarded with the application for the Medal.

DAIRY PRODUCE AND BUTTERMILK.—The B.D.F.A. will consider applications on behalf of County or similar Shows for a Silver Medal as a Championship award.

The B.D.F.A. Bronze Medals or Certificates may be available for local Shows, and in each case shall only be awarded to the best exhibit or competitor.

CATTLE.—The B.D.F.A. Silver Medals will only be awarded at County and similar Shows to cows or heifers' milk recorded under the Ministry of Agriculture Scheme.

The B.D.F.A. Silver Medals will only be awarded to Bulls out of recorded cows.

The B.D.F.A. Bronze Medals for cattle will be available only at Local Shows under similar conditions.

CLEAN MILK COMPETITIONS.—The B.D.F.A. Gold Medal may be available, on application, to the winner of clean milk competitions of six months or more duration. Silver Medals for clean milk competitions of shorter duration.

In the event of any dispute as to the interpretation of these Rules, the Council of the British Dairy Farmers' Association reserves full power of decision, and in the event of the Medal not being awarded in accordance with the above Rules and Conditions, the Council reserves the right to withhold the Medal altogether.

AWARDS DURING 1926.

Applicant.	Show or Examination held at	Date.	Medal.	Winner and Object.
Somerset County Council	... Somerset	1st Nov., 1925— 1st May, 1926	Gold	H. W. W. Hoskyns, winner of Clean Milk Competition for Dairy Herds of 20 Cows and over
"	"	"	Gold	S. Webber, winner of Clean Milk Competition for Dairy Herds of under 20 Cows.
Kent Education Committee	... Kent	1st Nov., 1925— 1st Oct., 1926	Gold	South Eastern Agricultural College, winners of Clean Milk Competition.
East Devon Milk Recording Society	... Devon	1st Oct., 1925— 1st Oct., 1926	Silver	F. B. Imbert-Terry, Jersey Cow, "Blue Hayes Baff," as giving highest yield of Butter Fat.
Yorkshire Agricultural Society	... Yorks	1st Jan., 1926— 12th June, 1926	Gold	J. Cooper, winner of Clean Milk Competition.
Hertfordshire County Milk Recording Society	... Herts	1st Jan., 1926— 30th June, 1926	Gold	J. P. Morgan, winner of Clean Milk Competition.
Buckinghamshire County Council	... Bucks	1st Mar., 1926— 31st May, 1926	Silver	G. J. Beckett, winner of Clean Milk Competition (Championship Class).
"	"	"	Bronze	G. S. Willatts, winner of Clean Milk Competition (other than Championship Class).
Port Elizabeth Agricultural Society	... Port Elizabeth	Mar 16—19	Silver	P. B. B. Naude, Friesland Cow "Hugenoot Aletia," gaining highest points in Milking Trials for Registered Animals.
Somerset County Agricultural Association	... Wells	May 18—20	Silver	Mr. R. Withers, Shorthorn Cow, "Avisford Belle 3rd," as best Milk Recorded Dairy Cow.
"	"	"	Bronze	Capt P. D. A. Courtenay, Shorthorn Bull, "Brent Barrington Snowstorn," as best Dairy Bull out of a Milk Recorded Cow.
Yealmon Agricultural Association	... Yealmon	June 2	Bronze	Miss D. Cane, Butter, as best exhibit of Butter or Cream.
Royal Counties Agricultural Society	... Portsmouth	June 2—5	Silver	Miss L. M. Cookman, Champion Buttermaker
Suffolk Agricultural Association	... Stowmarket	June 3—4	Bronze	Miss P. Robinson, Champion Buttermaker
Darwen and District Agricultural Association	... Darwen	June 5	Bronze	B. W. Cooper, Shorthorn Cow, "Merrick's Barrington Duchess," as best Milk Recorded Dairy Cow or Heifer.
Three Counties Agricultural Society	... Gloucester	June 8—10	Silver	Miss F. Eckley, Champion Buttermaker
Cambridgeshire and Isle of Ely Agricultural Society	... Wisbech	June 9	Silver	H. Thornton, Shorthorn Cow, "Kingshorpe Countess Ruby 4th," as best Milk Recorded Dairy Cow or Heifer.
Royal Cornwall Agricultural Association	... Launceston	June 9 and 10	Silver	R. J. Dunstan, South Devon Cow, "Porloe Snowdrop," as the Milk Recorded Cow gaining highest points in Milking Trials.
"	"	"	Silver	Mrs L. Matthews, Best exhibit of 2 lbs. Butter.
Staffordshire Agricultural Society	... Wolverhampton	June 16 and 17	Silver	G. Bickford, Shorthorn Cow, "Somerford Blanche 2nd," as best Milk Recorded Dairy Cow.
"	"	"	Bronze	G. Sumner, Best exhibit of 2 lbs. Butter

AWARDS DURING 1926.—Continued.

Applicant.	Show or Examination held at	Date.	Medal.	Winner and Object.
Sussex County Agricultural Society	Eastbourne	July 14 and 15	Silver	F. J. Cornwell and Sons, Shorthorn Cow, "Strawberry," as best Milk Recorded Dairy Cow.
Buntingford and District Agricultural Society	Hertford	July 15	Bronze	Brig.-Gen. Viscount Hampden, Shorthorn Cow, "Princess," as best Milk Recorded Dairy Cow or Heifer.
Yorkshire Agricultural Society	Harrogate	July 21—23	Silver	Miss A. Ward, Champion Buttermaker.
Bredon and District Agricultural Show	Bredon	Aug. 2	Bronze	W. C. Spencer & Son, Shorthorn Cow, "Busilean Tellurian Sunshine," as best Milk Recorded Dairy Cow or Heifer.
Tring Agricultural Society	Tring	Aug. 5	Silver	G. Holt-Thomas, British Friesian Heifer, "Northdean Barbara," as best Milk Recorded Dairy Cow or Heifer.
Penrith Agricultural Society	Penrith	Aug. 10	Bronze	John Smith, Shorthorn Cow, "Pride," as best Milk Recorded Dairy Cow.
Penistone Agricultural Society	Penistone	Aug. 19	Bronze	Miss M. F. Trimmingham, Best exhibit of Butter
Glanau Brech Agricultural Society	Pwllheli	Sept. 3	Bronze	F. C. Minoprio, Welsh Black Cow, "Tacocochon 3rd," as best Milk Recorded Dairy Cow or Heifer.
" " "	"	"	Bronze	Sir G. A. E. T. C. Meyrick, Bart., Welsh Black Bull, "Snowdon Bran," as best Dairy Bull out of a Milk Recorded Cow.
Young Farmers' Clubs	Dairy Show, Islington	Oct. 19—22	Silver	Miss M. Harriott, Highest score in Cow Judging Contest.
" " "	"	"	Bronze	L. Cornford, Second highest score in Cow Judging Contest.
" " "	"	"	Bronze	J. Harper, Equal Third, highest score in Cow Judging Contest.
" " "	"	"	Bronze	R. Collard, Equal Third, highest score in Cow Judging Contest.
Lancashire Cheese and Dairy Show Assoc.	Preston	Oct. 26	Bronze	Ribby Hall Dairy, Best exhibit of Cheese
Somerset and North Dorset Milk Recording Association	Somerset and North Dorset	Nov. 1	Silver	Capt. P. D. A. Courtenay, First place in Dairy Herds Competition
Gloucestershire "Root, Fruit and Grain Society	Gloucester	Nov. 9	Bronze	A. H. Tarr, Second place in Dairy Herds Competition.
Oxfordshire Agricultural Committee	Oxfordshire	Nov.	Silver	Mrs. N. H. Barton, Best exhibit of Butter.
" " "	"	"	Silver	A. Collins, First place in Milkmen's Contest for Competitors over 18 years.
" " "	"	"	Silver	Miss M. Beck, First place in Milkmen's Contest for Competitors under 18 years.
" " "	"	"	Bronze	J. Farman, Second place in Milkmen's Contest for Competitors over 18 years.
" " "	"	"	Bronze	H. Hopkins, Second place in Milkmen's Contest for Competitors under 18 years.

British Dairy Farmers' Association.

PRIZE ESSAY ON A DAIRYING SUBJECT.

The Council offers a Prize of £10 and the B. D. F. A. Silver Medal for an Essay upon any practical or scientific subject relating to Dairy Farming or Dairying, conditionally upon sufficient merit being shown.

Preference will be given to one based on the original work and experience of the writer. Where the work of others is relied upon, full references must be given, either in footnotes or by numbers (1), (2), &c., with a list of authorities at the end.

The Essay should not exceed 5,000 words, and must be received by the undersigned on 1st December, 1927.

An Essay must be sent in a sealed envelope, bearing a *nom de plume*, and in another sealed small envelope, also bearing the *nom de plume*, the Author must insert his name and address.

The Prize Essay will be the property of the Association. Others will be returned to their respective Authors, but the Association reserves the right to retain Essays on subjects suitable for inclusion in the Annual Journal, which will be paid for at the usual rate for literary contributions.

FRED J. BULL,

Secretary,

28, Russell Square, London, W.C. 1.

British Dairy Farmers' Association.

Suggestions to Farmers as to how best to ensure THE CLEANLINESS OF THE MILK SUPPLY.

The attainment of a clean milk supply is largely dependent upon the action of Dairy Farmers themselves.

Every Dairy Farmer is financially interested in this question. Public doubt of the cleanliness of the milk supply means reduced demand for fresh milk. Public confidence means increased use of milk as food and drink—consequently a larger demand.

Any Dairy Farmer by want of reasonable care can jeopardise the reputation of the whole industry and thus destroy the good work of those whose efforts are to increase the consumption of milk.

The co-operation of every producer is confidently requested.

The main points to be emphasized are :—

- (1) That consumers are entitled to receive milk which is clean and wholesome.
- (2) That the precautions necessary to produce clean wholesome milk are easy, simple and inexpensive.

Briefly these precautions are :—

To keep the milk sheds and cows as clean as possible.

To clean the udders and, before milking, wipe them with a clean damp cloth, rinsed after every cow.

To use a partly covered milking pail.

To see that milkers milk with clean hands.

To strain the milk through a strainer fitted with a new disc of cotton wool at each milking.

To empty water from cooler before washing.

To rinse utensils in cold water. Thoroughly wash in hot water and soda and scald in boiling water or, preferably, sterilise with steam or by boiling in water.

To stand utensils upside down to drain after cleaning and NOT to wipe them.

THIS ASSOCIATION APPEALS TO EVERY DAIRY FARMER TO PUT THESE PRECAUTIONS INTO OPERATION, BEING CONVINCED THAT IF PRODUCERS DO NOT TAKE MEANS TO ENSURE A CLEAN WHOLESOME MILK SUPPLY THE DEMAND FOR FRESH MILK WILL SERIOUSLY DIMINISH.

Correspondence on this subject will receive attention at the Offices of the Association, 28, Russell Square, London, W.C. 1.

British Dairy Farmers' Association.

Examination for

THE B. D. F. A. DIPLOMA.

The Association grants to any Candidate who satisfactorily passes the necessary Examinations :---

A Diploma for Proficiency in the Science and Practice of Dairying.

Candidates for the Diploma must produce satisfactory evidence that they have received not less than two academic years' scientific and practical instruction at some recognised centre for Dairying Instruction, and have spent at least six months on a recognised Dairy Farm, and have taken part in the work of the Farm; such practical work to be in addition to the time spent at the centre for Dairying Instruction.

The Examination will extend over three or more days, and will test the Candidates' knowledge and experience of the Principles and Practice of Dairying and Dairy Farming.

For these purposes papers will be set upon the following subjects :--

1. Dairy Farming and Dairy Hygiene.
2. *Dairying*, including (a) Principles of Dairying; (b) Dairy Factory Management and Dairy Engineering.
3. *Dairy Chemistry*, including (a) General Chemistry and Physics; (b) Dairy Chemistry.
4. Dairy Bacteriology.
5. Dairy Book-keeping.

The Candidates will also be required to satisfy the Examiners with regard to their skill in Butter and Cheesemaking.

Candidates will be required to answer, in writing, sets of questions within a given time, and will also be examined *viva voce*. They will be expected to possess a sound knowledge of all the subjects included in the following Syllabus. Candidates, if required, must produce their note-books of Lectures and Demonstrations attended.

The *Practical Examination* will include Buttermaking, and also the preparation of one Hard-pressed Cheese, either Cheddar, Cheshire or Derby, to be selected by the Examiner, and one Blue-veined Cheese, either Stilton or Wensleydale, to be selected by the Candidate.

The Diploma of the Association will be awarded to all Candidates who obtain not less than :—

- (a) 66 per cent. of the total possible marks for the Theoretical and Practical Examinations, and
- (b) 75 per cent. in the Practical Examinations.

The Diploma with Honours will be awarded to Candidates satisfying the following conditions :—

- (1) The total marks obtained shall be not less than 75 per cent. of the possible marks for the whole Examination.
- (2) The Candidate shall obtain not less than 70 per cent. of the possible marks for each and every written paper.
- (3) The Candidate shall obtain not less than 80 per cent. of the possible marks in each Practical Examination (Cheese and Buttermaking).

A silver medal will be awarded to the candidate who obtains the highest marks in the Diploma with Honours.

Examinations for the Diploma are held in the Autumn upon dates to be announced in the Agricultural and Dairy Press.

Entries will close 28 days prior to the date fixed for the commencement of the Examination.

The entry fee is 20s.

SYLLABUS OF SUBJECTS OF EXAMINATION.

1.—DAIRY FARMING AND DAIRY HYGIENE.

(a) Dairy Farming.

Dairy Cattle.—Characteristics of different breeds and choice of dairy cattle. The milk yields of the more important breeds, and suitability for the milk trade, cream, butter and cheese production.

Foods and Feeding.—Summer and winter feeding of dairy cattle. Root and fodder crops. Green forage. Ensilage. Different kinds of food and their relative composition. The effect of food upon milk, butter and cheese. Special foods used for dairy stock. Preparation of food for dairy stock. Feeding of calves and young stock.

Housing and Management.—The situation, chief dimensions and construction of cow houses; ventilation, drainage, water supply. Systems of herd management, including management of herd bulls and in-calf heifers. Cattle breeding and grading up of dairy stock. Systems of calf rearing. The housing and management of young stock.

Milk Recording.—Systems and utilization of results. Details of official schemes.

Milk Production.—Factors influencing the yield and quality of milk. Milking by hand and machine. Location and equipment of farm dairies. The production and sale of clean milk. The treatment of milk from the cow to the milk factory or consumer.

Management of Pigs.—Characteristics of the more important breeds. Feeding of pigs. The management of sows and breeding stock. Farrowing, weaning, rearing and fattening of pigs. Systems of pig keeping, including outdoor management. The production of pork and bacon.

Soil and Cultivation.—Types of soils suitable for dairying. Fertility in soils. Soil cultivation. Manures and manuring of arable and grass land.

Plant Physiology.—Fruits and seeds of agricultural plants. Roots and shoots. Flower construction and seed formation. Experiments to demonstrate the fundamental facts of plant physiology.

Crop Management.—Rotations and systems of cropping. Cultivation, manuring and management of roots, forage and other crops used in dairying. Silage crops. Temporary and permanent pasture. Haymaking.

Farm Management.—Systems of dairy farming. The selection, stocking and equipment of typical farms. The organization of the farm and disposal of produce. Cost of milk production.

Dairy Economics.—The dairy industry of Great Britain and its relationship to Agriculture. The relative importance of the various products. The retail milk trade. Markets. Dairy organization and co-operation. Modern developments in the dairy industry. American, Colonial and Continental dairying.

(b) Dairy Hygiene.

Animal Physiology.—General functions of the organs of the animal body. Breeding. Parturition. The structure of the udder and the process of milk secretion. Changes which food undergoes during digestion.

Veterinary Hygiene.—The more important diseases of dairy cattle and their remedies. The transmission and eradication of disease.

Milk Hygiene.—Sanitary conditions. Air space and ventilation. Suitability of water supply, temperature, &c. Methods of milking and handling of milk. Transportation. Prevention of contamination. Pasteurization. Sterilization. Legislation affecting milk production. Milk in relation to public health.

2.—DAIRYING.

(a) Principles of Dairying.

Milk.—Condition on delivery. Use of utensils and appliances. Cooling of milk. Importance of cleanliness. Keeping of milk. Legal standards. Methods of utilization of milk and their comparative returns. Pasteurization of milk.

Milk Testing and Sampling.—The use of the Gerber and Babcock fat testers. Lactometer readings. Scale readings. Sample of milk for testing. Interpretation of results.

Cream.—Separators and their management. Different systems of cream raising and ripening of cream. Changes during ripening. Natural and artificial ripening and preparation and uses of starters. Preparation of cream for sale. Use of preservatives. Clotted cream.

Butter.—Churns and buttermaking appliances. Preparation of cream for churning. Washing and working butter. Butter milk. Packing and transmission of butter. Selection and keeping of butter. Salting. Use of preservatives. Characteristics of good butter and method of judging. Circumstances affecting the flavour, texture, colour and keeping qualities of butter. Potting butter for keeping. Causes of inferior butter. Conditions which affect the Butter yield.

Cheese.—Properties of milk suitable for Cheesemaking. Principals of manufacture. Appliances for cheesemaking. The making of the principal varieties of British, Colonial and Continental cheese from cream, whole milk and skim milk. Acidity of milk. Common tests for acidity. Use of rennet and its substitutes. Whey. Ripening and storage of cheese. Packing and sale of cheese. Making of cream and other soft cheese. Defects in cheese and their causes. Judging cheese. Composition of Cheese.

Dairy By-Products.—Composition, uses and value of skim milk, butter-milk and whey.

Records, Keeping of.

(b) Dairy Factory Management and Dairy Engineering.

Factory Practice.—Milk depôts and handling of factory milk. Systems of cooling and refrigeration. Pasteurization. Factory butter and cheese making. Milk powders. Condensed milk. Frozen milk. Ice cream. Dried casein. Fermented milk. Lactose and whey-butter. Margarine manufacture. Equipment of milk depôts, butter, cheese and dairy factories.

Factory Management.—Factory routine. Organization of labour. Handling of milk on arrival at the factory. Methods of dealing with the milk. Milk contracts. Dairy factory legislation.

Production of Power.—The various forms of energy as used for the production of power.

Machinery.—Care and management of engines and boilers. Power transmission. Construction and use of dairy factory machinery. Refrigerating machinery.

Dairy Appliances.—Appliances used in the production and handling of milk, butter and cheese making. Milk testing apparatus.

Buildings.—Situation, construction and drainage of creameries, milk depôts and dairy factories.

3.—DAIRY CHEMISTRY.

(a) General Chemistry and Physics.

General Principles of Chemistry. The nature of elements and compound bodies. The different forms of matter, solid, liquid, gaseous. Specific gravity and instruments for determining it. Specific heat. Temperature and methods of measuring it. Thermometric scales. The influence of temperature in dairy operations. Physical and chemical changes involved in the following: Solution, precipitation, filtration, distillation, oxidation and reduction. Acids: Bases; Salts: their distinctive properties and quantitative estimation. Examination and identification of specimens and apparatus.

The Atmosphere.—Its constituents and impurities; its influence on dairy operations. Atmospheric pressure.

Water.—Constituents of pure and natural waters. The impurities of water and whence derived. The importance of a pure water supply in dairying.

Inorganic and Organic Chemistry.—General knowledge of the elementary chemistry of the following substances and their compounds so far as met with in dairying: Potash, soda, ammonia, lime, phosphoric acid, alcohol, acetic acid, carbonic acid, butyric acid, lactic acid, albumen, casein, fats, milk-sugar, glycerine, pepsin, saponification of fats.

(b) Dairy Chemistry.

Chemistry of Milk.—The nature, composition, properties and chemical constituents of milk. Microscopical appearances presented by milk. The influence of feeding. The changes which occur in the keeping of milk, and how produced. The natural and artificial souring of milk. Rennet, its nature and use.

Milk Products.—Physical and chemical changes involved in the making and keeping of butter and in the manufacture and ripening of cheese. Separated milk. Condensed milk. Fermented milk. Synthetic milk. The use of preservatives.

Dairy Analysis.—Analytical methods, their theory and practices. A general knowledge of the methods employed in the chemical analysis of milk, butter, and cheese. Adulteration of milk, cream, butter, and cheese, the ways in which adulteration is practised, the changes in composition thereby produced, and a general knowledge of the methods employed in detecting the same.

Chemistry of Feeding.—The principal constituents of food materials and the functions they severally fulfil. The influence of food constituents on milk production. Assimilation and digestion. The manurial value of foods. Milk and milk products as foods.

4.—DAIRY BACTERIOLOGY.

General Bacteriology.—Bacteria; their form, classification, growth and reproduction. The microscope and its use. Staining and microscopic examination of bacteria. Methods of isolation and cultivation. Preparation of culture media. Fermentations and chemical changes produced by bacteria. Enzymes and their action. Effects of heat, cold, sterilization, pasteurization, disinfectants and preservatives on bacteria and enzymes. Bacteriological examination of water supplies.

Bacteriology of Milk.—The changes produced by bacteria in milk. Useful forms and their functions. Harmful forms and their effects. Coagulation, discolouration, taints, &c. Bacteriological and other standards in relation to the cleanliness of milk.

Milk Products.—The bacteria concerned in the ripening of cream for butter making. "Starters": their preparation and management. The ripening of hard, soft, and blue-veined cheese. Bacteria injurious to milk products, including condensed and dried milk.

Dairy Mycology.—Moulds and yeasts in dairy practice. Their form, classification, growth and relation to dairy products.

5.—BOOK-KEEPING.

General Principles.—Principles of double entry book-keeping. Use of diary, journal, cash book and ledger. Posting to ledger. Preparation of profit and loss account and balance sheet. Systems of valuation.

Farm Book-keeping.—Application of the principles of book-keeping to dairy farming and to the sale of milk in bulk or by retail. Milk ledgers and customers' accounts.

Factory Accounts.—Methods of book-keeping as applied to milk depôts and dairy factories.

Business Management.—General office work. Banking and use of cheques.

CERTIFICATE IN DAIRY FACTORY MANAGEMENT.

Candidates for the Certificate in Dairy Factory Management must fulfil the following conditions :—

1. They must possess an approved Diploma in Dairying.
2. They must have had six months' practical instruction at an approved dairy factory, or at an approved dairy factory school.
3. They must obtain 60 % of the possible marks in the examination for the Certificate in Dairy Factory Management.

Examination for the

CERTIFICATE IN DAIRY FACTORY MANAGEMENT.

1. Two papers will be set on the subjects outlined in the following syllabus.
2. Candidates will be examined orally in Factory Management with reference to the type of factory in which their practical training has been obtained.
3. Candidates must submit to the Examiners full notes of the work which has been carried out in the factories in which their practical experience has been obtained.

SYLLABUS OF EXAMINATION.

This Syllabus should not be viewed from a purely engineering standpoint, but students will be expected to have a general knowledge of the management of factory machinery : —

Paper 1.—Planning, Equipment and Management of a Dairy Factory.

Dairy Factories.—Site, building materials, construction, laying of floors, lighting, ventilation, drainage, sanitation, disposal and treatment of sewage and factory waste. Space requirements for the common types and sizes of factories.

Water Supply.—Water requirements ; sources of supply. Examination for quality and purity. Methods of purification. Suitability of water supplies for dairy purposes. Sites for wells. Construction of wells. Artesian wells. Pumps for deep and shallow wells. Air-lift pumps.

Factory Equipment.—Artificial lighting and sources of power in the factory. Equipment required for various types of factories and approximate cost of same. The disposition and control of factory machinery.

Steam Plant.—Types of vertical and horizontal boilers and their relative advantages and disadvantages. Sizes of boilers required in dairy factories. Evaporating power of boilers. Setting and insulation. Cleaning out of boilers. Economical firing. Fuel used, *e.g.*, coal, coke and wood. Cost and calorific value. Fuel consumption and cost of steam production. Allocation of steam supply to different purposes in the factory. Boiler smoke stacks and their construction. Boiler fittings, including donkey pumps and water injectors. Feed heaters. Methods of economising steam supply.

Factory Machinery.—Steam, gas and oil engines. Electric motors, turbines, water power, comparison of the various types and their relative efficiency. Construction and working of the various types. Cost of maintenance. Power requirements of the factory and the most suitable combinations of power when different sources of energy are available. The management and fitting up of machinery, including electric fittings. Adjustment of bearings. Packing of glands. Fixing of brackets, &c. Lubrication of machinery. Oil containers and filters. Lubricants. Lubrication of high-speed machinery. Oils and grease for shafting. Arrangement of machinery and methods of transmitting power. Belts, types and uses. Repairs to belting. Pulleys and gearing. Methods of increasing and reducing speed. Labour-saving devices. Tools required for a dairy factory.

Factory Plants.—Construction and operation of milk apparatus, including clarifiers, pasteurisers, separators, milk pumps, refrigerators, &c. Refrigerating machinery, CO₂ and ammonia. Methods of operation and management. Cold storage and brine cooling. Efficiency in the transfer of heat in heating and cooling apparatus. Methods of carrying out efficiency tests under different conditions and outputs. Factory appliances including cheese vats, holding vats, power churns, bottling machinery and other factory equipment. Their approximate cost and suitability of the various types. Methods of cleaning equipment, utensils and milk churns.

Factory Management.—Organization of labour. Business management. Book-keeping. Cost accounts. Profit and loss in manufacturing. Stock-taking and depreciation. Railway rates and conditions. Road transport. Systems and comparative costs. Advertising. Markets and sale of produce. Co-operative organization.

Factory Law.—Law as far as it affects the factory, the management and the produce. Factory and Workshops Act. Workmen's Compensation. Health Insurance. Employer's Liability and Trade Boards Acts. Industrial and Provident Societies Act. Rivers

Pollution Act. Sale of Foods and Drugs Act. Milk and Dairies Acts and other legislation as it affects the working of factories and the manufacture and sale of dairy produce.

Paper 2.—Handling and Utilization of Milk and Milk Products.

Handling of Milk.—Purchase, collection and distribution of milk. Management of milk on arrival at the factory. Weighing, sampling, testing, recording and cleaning. Methods of paying for milk and cream.

Utilization of Milk.—Methods of dealing with milk for sale for cream production, butter making, cheese making, and for the manufacture of other products.

Factory Products.—Preparation of cream for market. The manufacture and treatment of butter and cheese. Manufacture of condensed and powdered milk, casein and milk sugar, &c. Ice cream manufacture, &c. The utilization of by-products.

Pig-Keeping.—Feeding and management of pigs. The production of pork and bacon. Bacon curing.

The Entry Fee for each Candidate is £4 4s.

Examination for **CHEESEMAKING CERTIFICATE.**

The Association grants to any Candidate who satisfactorily passes the necessary Examination—

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking.

The Examination, which will extend over two or more days, will test the Theoretical Knowledge of the Candidates and their Practical Skill in Cheese-making. Each Competitor will be required to answer, in writing, a set of questions within a given time, and will also be examined *viva voce*. On the same or following day a Practical Examination in Cheesemaking will take place.

Candidates will be considered to have passed the Examination if they obtain not less than 60 per cent. of the marks on each and every written paper and not less than 66 per cent. in the Practical test.

Candidates for this Certificate must, at the time of entry, produce satisfactory evidence that they have received at least twelve months' instruction in the Theory and Practice of Cheesemaking, of which at least six months must have been spent at a recognised centre for dairy instruction. They must possess a sound knowledge of the subjects included in the following Syllabus.

Candidates will be required to make one Hard-pressed Cheese, either Cheddar, Cheshire or Derby, to be selected by the Examiner, and one Blue-veined Cheese, either Stilton or Wensleydale, to be selected by the Candidate. They must also have a knowledge of the manufacture of other varieties of Hard-pressed Cheese and of Soft Cheese.

Candidates are at liberty to bring their own utensils for the Practical Examination if they wish to do so.

Examinations for Cheesemaking Certificates are held twice a year, viz., in the Spring and Autumn, upon dates announced in the Agricultural and Dairy Press.

Entries will close 28 days prior to the date fixed for the Examination.

The Entry Fee is 10s.

SYLLABUS.

1. Milk.—The Food Value of Milk ; The Yield of Milk from various Breeds ; Secretion of Milk and Structure of the Udder ; Milking by Hand and Machine ; Handling of Milk from Cow to Dairy ; Importance of Cleanliness ; Production of Highest Grade Milk ; Cooling of Milk ; Sale of Milk ; Influence of Food on the Yield, Flavour and Fat Contents of Milk ; Composition of Milk, Nature and Properties of its Constituents ; Differences between Morning and Evening Milk and their Causes ; Methods of Sampling and Simple Methods of Testing Milk, as the Lactometer, Creamometer, and Centrifugal Fat Testers ; Testing for Acidity ; Causes of Fermentation ; Colostrum, its nature and properties ; the Keeping of Dairy Records ; the Handling of Evening's Milk for Cheesemaking ; Properties of Milk suitable for Cheesemaking ; Taints in Milk, their Causes, Effects and Remedies ; Tests for such Taints ; the Ripening of Milk for Cheesemaking ; Methods and Reasons for Ripening ; use of Natural and " Culture " Starters ; Pasteurization of Milk ; Chilled Milk ; their subsequent use for Cheesemaking ; Special Testing of Milk, Whey, and Curd requisite in a Cheese Dairy ; Utilization of Dairy By-products.
2. Cheese.—Rennet : its Preparation, Properties, and Action upon Milk ; Testing its Strength ; Storage of Rennet ; Substitutes for Rennet ; Annatto ; a General Knowledge of the Manufacture of the Principal Varieties of Hard-pressed, Blue-veined, and Soft Cheeses, including the use of wood and metal tubs and jacketed vats ; Methods of Scalding ; the Development and Control of Acidity in Curd ; Salting and Brining in Cheesemaking ; Bandaging ; Ripening and Storing of Hard-pressed, Blue-veined and Soft Cheeses ; Defects in Cheese and their causes ; Composition of Cheese ; Composition and Utilization of Whey ; the Manufacture of Whey Butter ; the Equipment of a Cheese Dairy and its Cost ; the care of Utensils ; the Detailed Principles and Practice requisite for the Manufacture of one of the following types of Cheese :—
 - (a) A Hard-pressed British Cheese (not less than 25 lbs. weight).
 - (b) A Blue-veined British Cheese (not less than 10 lbs. weight).

Examination for
BUTTERMAKING CERTIFICATE.

The Association grants to any Candidate who satisfactorily passes the necessary Examination—

**A Certificate of Merit for Proficiency in the Theory and Practice of
Buttermaking.**

The Examination, which will extend over two or more days, will test the Theoretical Knowledge of the Candidates and their Practical Skill in Buttermaking. Each Competitor will be required to answer, in writing, a set of questions within a given time, and will also be examined *viva voce*. On the same or following day a Practical Examination in Buttermaking will take place.

Candidates will be considered to have passed the Examination if they obtain not less than 60 per cent. on each and every written paper, and not less than 66 per cent. in the Practical Test.

Candidates for this Certificate must, at the time of entry, produce satisfactory evidence that they have received at least three months' instruction (not necessarily at a Dairy School) in the Theory and Practice of Buttermaking. They must possess a sound knowledge of the subjects included in the following Syllabus. They will be required to make Butter.

Candidates are at liberty to bring their own utensils for the Practical Examination if they wish to do so.

Examinations for Buttermaking Certificates are held twice a year, viz., in the Spring and Autumn, upon dates announced in the Agricultural and Dairy Press.

Entries will close 28 days prior to the date fixed for the Examination.

The Entry Fee is 5s.

SYLLABUS.

1. Milk.—The Food Value of Milk; the Yield of Milk from various Breeds; Secretion of Milk and Structure of the Udder; Milking by Hand and Machine; Handling of Milk from cow to dairy; Importance of Cleanliness; Production of Highest Grade Milk; Cooling of Milk; Sale of Milk; Influence of Foods on the Yield, Flavour and Fat Contents of Milk; Composition of Milk, Nature and Properties of its constituents; Differences between Morning and Evening Milk and their causes; Methods of Sampling and Simple Methods of Testing Milk, as the Lactometer, Creamometer, and Centrifugal Fat Testers; Testing for Acidity; Causes of Fermentation; Colostrum, its nature and properties; the Keeping of Dairy Records.
2. Cream.—The Various Methods of Obtaining Cream; the Construction and Use of the Utensils employed; Separators, the Construction and Use of the various Types; Composition of Cream, Separated Milk, Skimmed Milk, and Buttermilk, with Simple Tests for Fat in same; the Ripening of Cream—Objects and Results; Changes during Ripening; Testing for Acidity; Natural and Artificial Ripening and Preparation of Starters; the Preparation of Cream for Churning; Preparation of Cream for Sale; Clotted Cream.
3. Butter.—The Various Methods of Obtaining Butter, including the Churning of Whole Milk; Utensils required, and the Preparation, Use, and Care of same; the Process of Butter Manufacture in all its details; Conditions which affect the Butter Yield; Circumstances affecting the Flavour, Texture, Colour, and Keeping Properties of Butter; Dry-salting and Curing of Butter; Faults in Butter and their causes; Composition and Properties of Good Butter; Composition and Causes of Inferior Butter; Methods of Judging Butter.

Particulars and Entry Forms for all Examinations may be obtained from

The SECRETARY,

BRITISH DAIRY FARMERS' ASSOCIATION,

28, Russell Square, London, W.C. 1.

EXAMINATIONS AT LOCAL CENTRES.

In order to meet the convenience of Students at Dairy Schools, members of local Societies, and other persons, the Association will conduct Examinations for its Diplomas and Certificates at any place in the United Kingdom upon receiving satisfactory proof that the following conditions will be observed :—

That the School, Society, County Council, or other body requesting such an Examination to be held, undertake :—

- (1) To supply all necessary appliances and materials.
 - (2) To pay the fees and expenses of the Examiners.
 - (3) To supply the milk required free from preservatives and fit for Cheesemaking.
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Copies of Question Papers set at recent Examinations may be obtained at 3d. per copy.

Applicants are requested to state whether Diploma, Cheese, or Butter questions are required.

Further particulars and Entry Forms for Students may be obtained from

The SECRETARY,

BRITISH DAIRY FARMERS' ASSOCIATION,

28, Russell Square, London, W.C.1.

EXAMINATION RESULTS, 1926.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE SOMERSET FARM INSTITUTE, CANNINGTON; ON MONDAY, TUESDAY, AND WEDNESDAY, MARCH 29TH, 30TH, AND 31ST.

- A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking to Doris Bastable, Reginald W. Champion, Gertrude B. Flagg, Monica W. Fursman, Ralph Hoddinott, Lilian A. Oaten, Helen R. E. Pike, Elsie I. Speed, and James H. Wickham.
- A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking to Reginald W. Champion, Gertrude B. Flagg, Monica W. Fursman, Lilian A. Oaten, Helen R. E. Pike, Kathleen J. Small, and Elsie I. Speed.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE DAIRY DEPARTMENT, COUNTY LABORATORIES, CHELMSFORD; ON FRIDAY, TUESDAY, AND WEDNESDAY, JUNE 11TH, 15TH, AND 16TH.

- A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking to Alan G. Bateman, Phoebe F. Bond, Dorothy A. Brunning, Alma E. Cowell, Annie Hodge, Graham Horne, Eleanor W. Johnston, Fred Lodge, Hugh Macmillan, Anthony J. Marval, Frederic T. Oliver, Harold M. Penson, Beatrice Roberts, Joan V. Skelton, and Blanche I. Thompson.
- A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking to Alan G. Bateman, Phoebe F. Bond, Dorothy A. Brunning, Alma E. Cowell, Margaret G. Goody, Graham Horne, Eleanor W. Johnston, Anthony J. Marval and Harold M. Penson.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY, WEDNESDAY, AND THURSDAY, JUNE 14TH, 15TH, 16TH, AND 17TH.

- A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking to Henry R. H. Brown, Richard W. Channon, Norman C. Cooper, Winifred C. Davies, Morfydd V. M. Evans, Agnes A. Forster, Cecil Green, Margaret A. V. Griffiths, Reginald W. Hart, Alice Hassall, Hilda M. Hatchwell, Millicent A. Hunt, Constance M. Jenkins, Winifred M. Jolliffe, Ralph Keen, Doris S. Lindsay, Mabel G. Longhurst, Margaret Martin, John C. Mauger, Dorothy B. Menzies, Charles S. Miles, Dorothy E. Paice, Isabella A. M. Peel, Anthony T. G. Trew, Edith A. D. Turner, Sylvia L. Udell, and Elsie Waters.
- A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking to Edith M. Barnard, Henry R. H. Brown, Richard W. Channon, Norman C. Cooper, Winifred C. Davies, Gladys Dawson, Agnes A. Forster, Helen G. Goodman, Cecil Green, Margaret A. V. Griffiths, Reginald W. Hart, Millicent A. Hunt, Winifred M. Jolliffe, Phyllis E. Kent, Margaret Martin, Charles S. Miles, Dorothy E. Paice, Isabella A. M. Peel, John R. Rowling, Viola C. Stamper, Anthony T. G. Drew, Edith A. D. Turner, Elsie Waters, and Elizabeth E. Willey.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT STUDLEY COLLEGE, STUDLEY; ON TUESDAY, WEDNESDAY, AND THURSDAY, JULY 13TH, 14TH, AND 15TH.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking to Irene D. Beston, Norah M. Fisher, Edith E. Fosbery, Ruth Gilliat, Joan Kitching, Margaret A. Miller, Evelyn M. Mosley, and Jocelyn B. B. Robertshaw.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking to Margaret A. Hart, Kathleen R. C. Hodgson, Una A. Ridgway, Diana H. Style, and Kathleen L. Wigglesworth.

EXAMINATION FOR DIPLOMA, BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY, WEDNESDAY AND THURSDAY, SEPTEMBER 13TH, 14TH, 15TH, AND 16TH.

A Diploma, with Honours, and Silver Medal for Proficiency in the Science and Practice of Dairying to Margaret F. Griffiths, Charles S. Miles, Viola C. Stamper, and Elizabeth E. Willey.

A Diploma and Silver Medal for Proficiency in the Science and Practice of Dairying to Nancy L. Baker, Kate Boyes, Henry R. H. Brown, Richard W. Channon, Lucy H. Collishaw, Kate Cragg, Winifred C. Davies, Gladys Dawson, William Evans, Reginald T. J. Fleming, Agnes A. Forster, Lois C. Furnell, Sarah E. Gillson, Margaret G. Goody, Cecil Green, Margaret A. V. Griffiths, Reginald W. Hart, William F. Heathfield, Kathleen R. C. Hodgson, Millicent A. Hunt, Winifred M. Joliffe, Florence M. Lincoln, Flora I. McArthur, Dorothy Owen, Phyllis H. S. Read, Phyllis Rigby, Diana H. Style, John O. Thomas, Reginald A. L. Walls, and Kathleen L. Wigglesworth.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking to Ann E. Benjamin, Gwendoline M. Borlase, Olive A. Lewis, William O. Slatter, Phyllis B. Thorp, Graham D. Trevor, and Rose Ward.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking to Ann E. Benjamin, Morfydd V. M. Evans, Alice Hassall, Constance M. Jenkins, Olive A. Lewis, John C. Manger, William O. Slatter, Leonard A. Smith, Graham D. Trevor, Rose Ward, and Elizabeth A. Yardley.

EXAMINATION FOR BUTTERMILKING CERTIFICATE AT
SOMERSET FARM INSTITUTE, CANNINGTON; MONDAY,
TUESDAY, AND WEDNESDAY, MARCH 29TH, 30TH, AND
31ST, 1926.

EXAMINER :

ALEC TODD.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *visà voce*.

QUESTIONS.

1. What would you consider to be a fair composition for a sample of milk, and what are the Government regulations regarding its composition?
2. Why is it advisable to cool milk before it is despatched by rail, and what is the best means of cooling?
3. How would you treat cream that is eventually to be sold retail?
4. What difference would you make in the treatment of cream for buttermaking in a small dairy where only two cows are kept, and in a large dairy where churning is done every day?
5. Describe the construction of a separator bowl, and explain why the cream is separated from the skim milk.
6. How would you test a sample of milk for fat and solids not fat?
7. What change has taken place in the ripening of cream, and what is responsible for bringing about this change?
8. What amount of butter would you expect to get from 10 gallons of reasonably good milk.
9. What are the chief factors in producing a good sample of butter?
10. What is the most profitable way of dealing with separated and butter-milk?

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT
SOMERSET FARM INSTITUTE, CANNINGTON; MONDAY,
TUESDAY, AND WEDNESDAY, MARCH 29TH, 30TH, AND
31ST, 1926.

EXAMINER :

ALEC TODD.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. Explain the necessity of cleanliness in the cow shed, and in the general handling of milk intended for cheesemaking.
2. How would you test milk ?
 - (a) For keeping qualities.
 - (b) For acidity.
 - (c) For coagulating properties.
3. How does the quality of milk used affect the yield and general palatability of the cheese made from it ?
4. How would you treat evening's milk intended for cheesemaking ?
 - (a) On an ordinary farm.
 - (b) In a cheese factory.
5. What is a starter and how would you use it ?
6. Write a short description of what you know about rennet.
7. What do you consider is the essential difference in the making of Caerphilly cheese as compared with Cheddar, and explain why a Caerphilly is sold in a small flat shape ?
8. What takes place in the ripening of a Wensleydale cheese ?
9. How may a Cheddar cheese be seriously reduced in value through careless attention after it leaves the press ?
10. What chief points in the making are responsible for the close creamy texture so essential in a good Cheddar ?

EXAMINATION FOR BUTTERMILKING CERTIFICATE AT
THE DAIRY DEPARTMENT, COUNTY LABORATORIES,
CHELMSFORD; ON FRIDAY, TUESDAY, AND WEDNES-
DAY, JUNE 11TH, 15TH, AND 16TH, 1926.

EXAMINER: W. J. GRANT.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. Give some idea of what in your opinion constitutes a farm well adapted to dairy farming.
2. Give a description of the condition in which cream is found in milk.
3. Give some information as to the points and character you would look for in a first class dairy cow.
4. What method of feeding calves would you recommend upon a buttermilking farm? What are the objections raised against the sole use of separated milk in calf rearing.
5. State reasons for insisting upon absolute cleanliness in the dairy and its appointments.
6. Give a suitable scale of points for judging butter.
7. On what lines would you judge the merits of a cream separator?
8. State briefly what system of testing milk should be employed—
 - (a) Where milk is sold.
 - (b) Where used for buttermilking.
 - (c) Where used for cheesemaking.
9. Name the causes of variation in the composition of milk with which you are familiar.
10. State as fully as you can the changes which take place during the ripening of cream.

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT
THE DAIRY DEPARTMENT, COUNTY LABORATORIES,
CHELMSFORD; ON FRIDAY, TUESDAY, AND WEDNES-
DAY, JUNE 11TH, 15TH, AND 16TH, 1926.

EXAMINER : W. J. GRANT.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

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Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. At what time of the year and for what reasons do you expect to make the finest cheese of the cream ?
2. What foods give the best flavoured and best keeping cheese ?
In giving concentrated foods what would you recommend ?
Does the kind of land make any difference to your selection of foods ?
3. What are the present prices of cheese ? What scale of points would you draw up in judging cheese and how do you determine the marketable value of cheese ?
4. Describe the process of milking a cow, how it should be carried out, the precautions that should be taken as to cleanliness, &c., of the cow's udder and teats and of milker's hands ?
5. Do you consider the starter an important factor in connection with the manufacture of milk products ? Give your reasons.
6. Describe briefly the process of manufacturing one variety of hard pressed cheese with which you are acquainted.
7. Why is acidity so important in cheesemaking ?
8. In the manufacture of cheese describe the testing of milk, whey and curd for acidity, and give some standards of acidity applicable in Cheddar cheesemaking.
9. Which of the components of milk do we retain in butter and which in cheese ?
10. To be successful as a manufacturer of cheese and butter it is necessary to have a supply of pure sound milk. What part of your management would require to be most carefully looked into to produce milk of this character ?

EXAMINATION FOR BUTTERMILKING CERTIFICATE AT THE
BRITISH DAIRY INSTITUTE, READING; ON MONDAY,
TUESDAY, WEDNESDAY, AND THURSDAY, JUNE 14TH,
15TH, 16TH, AND 17TH, 1926.

EXAMINER :

W. BURKITT, B.Sc.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *visu voce*.

QUESTIONS.

1. What do you consider is an average composition for cows' milk?
How may this composition vary, and what are the causes of these variations?
2. Describe briefly what in your opinion are the two best methods of obtaining cream from milk.
3. What are the utensils necessary for dealing with the milk from a herd of 30 cows, and how do these vary according to the different methods used for disposing of the milk?
4. If you had a trade for cream how would you prepare it to ensure a good product?
5. How are the colour, flavour and keeping qualities of butter influenced?
6. What do you mean by "the ripening of cream" and how is this best done?
7. Describe fully the various methods of salting butter.
8. What are the reasons for the presence of an excessive amount of fat in butter milk and separated milk, and how would you prevent this waste?
9. What influence have foodstuffs on the quantity and quality of butter?
10. Describe the best methods of testing for butterfat centrifugally.

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE
BRITISH DAIRY INSTITUTE, READING; ON MONDAY,
TUESDAY, WEDNESDAY, AND THURSDAY, JUNE 14TH,
15TH, 16TH, AND 17TH, 1926.

EXAMINER :
MISS J. REID.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

Ten questions only to be answered.

1. (a) State average percentage composition of cows' milk ;
(b) Name and describe the ingredients which enter into the composition of cheese ;
(c) State average composition of Cheddar cheese.
2. (a) Why is cleanliness so important in cheesemaking ? ;
(b) What are the chief sources of bacterial contamination of the milk, and how can such contamination be reduced to a minimum ?
3. Describe in detail your method of handling the evening's milk for Cheddar cheese from time of milking.
4. (a) How would you proceed to test milk to ascertain the specific gravity and percentage of fat ? ;
(b) What relation exists between the natural fat percentage and the yield of cheese ?
5. (a) What do you understand by the term ripening of milk in cheesemaking ? ;
(b) Why is it so important to have the milk sufficiently ripened before rennetting ? ;
(c) What are the agents chiefly responsible for the ripening processes ?

6. What are the objects in using a culture starter and how is the starter employed?
7. (a) What is meant by pasteurization of milk? Describe the process;
(b) Why is pasteurizing not generally practised in cheesemaking?
8. What are the conditions which influence the action of rennet on milk and the effects in cheesemaking of varying the quantity of rennet?
9. Given 200 gallons of milk with natural fat percentage 3.8, show your method of working out the quantity of ripe Cheddar cheese you would expect to obtain. Compare the yield that would be obtained with milk, 3.4 percentage of fat. What are the main causes of loss in the making process?
10. Describe the special features of a typical Stilton or Wensleydale, and explain how these qualities are obtained.
11. Why is a proper degree of acidity so essential at the various stages in the process of cheesemaking? What are the chief methods of controlling the acid fermentation throughout the process?
12. State utensils required and cost for a cheese-making dairy of 50 cows.

EXAMINATION FOR BUTTERMAKING CERTIFICATE AT THE
STUDLEY COLLEGE, WARWICKSHIRE; ON TUESDAY,
WEDNESDAY, AND THURSDAY, JULY 13TH, 14TH, AND
15TH, 1926.

EXAMINER :

MISS A. MATTHEWS.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. State fully what precautions you would take (a) during milking ; (b) the treatment of the milk ; (c) the ripening of the cream in order to produce first grade butter.
2. What are the advantages of ripening cream and what would be the effect of churning (a) under ripened cream ; (b) over ripened cream ?
3. State the principal causes which influence the yield and quality of milk.
4. How do you account for taints and bad flavours sometimes found in butter from private dairies during winter, and how would you avoid them ?
5. What are the most important points you would consider in choosing a separator, and what precautions are necessary to ensure that it works properly ?
6. Give the composition of colostrum, and state why it should be avoided in butter making.
7. Explain fully how you would prepare a starter from a pure culture, and when it should be ready for use.
8. Give a scale of points for judging a milking competition.
9. You are put in charge of a Dairy Farm where Grade "A" milk is produced. What precautions would you take to prevent contamination of the milk and utensils during, and between, milking periods ?
10. Describe shortly, two methods of pasteurizing milk for retail distribution.

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE
STUDLEY COLLEGE, WARWICKSHIRE; ON TUESDAY,
WEDNESDAY, AND THURSDAY, JULY 13TH, 14TH, AND
15TH, 1926.

EXAMINER :

MISS A. MATTHEWS.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. What faults would you expect to find in cheese made from milk produced under unclean conditions? What precautions would you take to counteract them?
2. What are the critical stages in the process of Cheddar cheese-making?
3. In what respects does milk produced in May differ from milk produced in October? State whether your methods of cheese-making with these milks would vary, and why?
4. If you were given over-acid milk for cheesemaking what cheese would you prefer to make, and what difference would you make in the process of manufacture?
5. Compare the chief differences in the manufacture of Cheddar and Derby cheese; and state how long each take to ripen.
6. Explain fully how you would prepare a starter from a pure culture and when it should be ready for use.
7. Give a short description of method and equipment necessary for thorough cleansing and sterilising dairy utensils suitable for a dairy farm.
8. What is the cause of (a) soft, spongy curd; (b) dry, hard, and gritty curd in soft cheese, and give scale of points in judging Coulommier and Gervais cheese.
9. Describe fully two methods of pasteurizing milk suitable for use in a retail dairy business, and give a list of the plant and machinery required.
10. Give details of the manufacture and ripening of either Stilton or Wensleydale Cheese.

EXAMINATION FOR DIPLOMA AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY, WEDNESDAY, AND THURSDAY, SEPTEMBER 13TH, 14TH, 15TH, AND 16TH, 1926.

EXAMINER :

T. J. DRAKELEY, Ph.D., F.I.C., F.C.S.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

CHEMISTRY AND BACTERIOLOGY.

1. How would you determine the percentage of nitrogen in a given sample of cheese, and explain what deductions you would make from the value so obtained ?
2. What is meant by the "butter ratio" ? How may it be calculated ? What value would you expect for the butter ratio of a milk containing 3.7 per cent. of butter fat ? If the actual ratio in practice is lower than that calculated, what explanations might be given to account for this fact ?
3. Describe the construction of a thermometer, and explain the value of this instrument in the dairy.
4. Write a short essay on *one* of the following (a) starters, (b) the atmosphere, (c) the water supply, (d) the lactometer and its use.
5. Write an account of the ways in which bacteria multiply and give examples. How do moulds and yeasts multiply ?
6. What are the principal changes which take place during the ripening of cheese ? What do you consider causes the changes you mention ?
7. How would you determine whether a sample of milk contains bacillus coli ? Of what value is this investigation ?
8. How would you prepare glassware for use in bacteriological work ? Illustrate your answer by reference to the sterilisation and subsequent storing of a pipette and a Petri dish.

EXAMINATION FOR DIPLOMA AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY, WEDNESDAY, AND THURSDAY, SEPTEMBER 13TH, 14TH, 15TH, AND 16TH, 1926.

EXAMINERS :

T. J. DRAKELEY, Ph.D., F.I.C., F.C.S., and W. BURKITT, M.Sc.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *visu voce*.

DAIRY FARMING QUESTIONS.

1. At what time of the year would you prefer to enter on a dairy farm? Give your reasons.
2. Which do you consider are the two chief arable crops in dairy farming? Describe their cultivation.
3. How would you compile a winter ration for a dairy cow in full milk? What are the underlying principles?
4. How do the following breeds differ :—(a) Shorthorn and Ayrshire ;
(b) Guernsey and Friesian?
5. Describe the rearing of a calf up to six months of age on a milk selling farm.
6. Write a short essay on “ Abortion, its causes, losses and treatment.”
7. If you keep pigs on a dairy farm how would you manage them, and feed them?
8. Describe briefly the chief ailments affecting poultry and how you would treat them.
9. What are the chief points to be considered in selecting a site for, and constructing, a dairy?
10. What do you mean by :—Catch cropping, white scour, milk records, escutcheon theory, wet grains, mammitis, warbles, frit fly, total solids?

EXAMINATION FOR DIPLOMA AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY, WEDNESDAY, AND THURSDAY, SEPTEMBER 13TH, 14TH, 15TH, AND 16TH, 1926.

EXAMINERS: T. J. DRAKELEY, Ph.D., F.I.C., F.C.S.,
W. BURKITT, M.Sc., and MISS J. REID.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and answers to Questions 1 to 6 should be fastened together in order in the left-hand corner. Answers to Questions 7 to 11 should be treated in the same way. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

DAIRYING QUESTIONS.

1. What is meant by pasteurization? Describe the various methods of pasteurizing milk. Give the advantages and disadvantages of this system.
2. Contrast the milk yielded by the various breeds of dairy cattle as found to-day in the British Isles, both as regards quantity and quality. Comment on any qualities which specially fit these milks for varying dairying purposes.
3. Describe fully the process of the secretion of milk in the cow's udder.
4. What influence have the various cattle foods on the yield, flavour and quality of milk?
5. What records would you advise should be kept for dairying purposes?
6. Briefly explain the new "Milk and Dairies Order, 1926."

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7. What are the recognised grades of milk on the British market? Describe each grade. What special precautions are necessary in the production of the highest grade?
 8. Describe the effects of foods and feeding on the quantity and quality of milk and select a ration suitable for a cow 1,000 lbs. live weight in full milk in winter.

9. What are the main objects in "Milk Recording?" Describe an approved method of keeping the records and state the information an official record should contain.
 10. Give average composition of whey from Cheddar cheesemaking and compare various methods of utilising this by-product (*a*) On the farm (*b*) At the factory.
 11. Compare the qualities of a typical sample of Cheddar and Stilton cheese. How are the different qualities of the Stilton produced? What weight of ripe Stilton would you expect to obtain from 25 gallons of milk, average quality Shorthorn breed, and what are the more common errors in making resulting in loss of weight?
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EXAMINATION FOR BUTTERMILKING CERTIFICATE AT THE
BRITISH DAIRY INSTITUTE, READING ; ON MONDAY,
TUESDAY, WEDNESDAY, AND THURSDAY, SEPTEMBER
13TH, 14TH, 15TH, AND 16TH, 1926.

EXAMINER :
W. BURKITT, M.Sc.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. What do you mean by the following terms :—Acidity of cream.
Butter milk. A starter. Clotted cream ?
2. How would you obtain the best quality of cream for butter-making ?
3. Why is it so very important to get a good grain in churning ?
4. How do you ascertain the percentage of Total Solids in milk, and what percentage should there be ?
5. Which do you consider the best breeds of cattle for buttermaking ?
Give reasons for your choice.
6. What is a cream separator, and what happens to the milk when it is separated ?
7. How would you preserve butter for winter use, or for long keeping, when it is too cheap and uneconomical to market ?
8. What are the causes of bad flavours in butter ?
9. Which in your opinion is the best of type of milk strainer and milking pail, and why do you prefer them ?
10. Describe the arrangement of a good modern butter dairy, giving a rough plan and dimensions, showing the position of the various appliances, and giving a list of the plant required.

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE
BRITISH DAIRY INSTITUTE, READING; ON MONDAY,
TUESDAY, WEDNESDAY, AND THURSDAY, SEPTEMBER
13TH, 14TH, 15TH, AND 16TH, 1926.

EXAMINER.
MISS J. REID.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining over 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. Mention the principal ingredients in cow's milk and describe the physical condition of each. Which of these ingredients are the more important from the cheesemakers' point of view and why?
2. What conditions influence the percentage composition of milk? Describe the effect of each condition you mention.
3. Describe your method of cooling the evening's milk in hard pressed cheesemaking, and the influence of the temperature you adopt on the bacterial contents of the cheese.
4. What are the functions of rennet in cheesemaking and the conditions most favourable for its action? Why is it so important to add the rennet in cheesemaking at the correct degree of acidity in milk?
5. When making a quick ripening cheese, and a slow ripening one, what different conditions are required?
6. Describe in detail your method of propagating "The Starter" and state the more common causes of deterioration in starters.
7. What are the more common defects in Cheddar cheese and how may these defects be avoided?
8. How long do you press a Cheddar cheese, what amount of weight used, and what would be the effect of under pressing?
9. Describe the special features of a typical Stilton or Wensleydale and explain how these qualities are obtained.
10. Do you require any special precautions in the treatment of milk for soft cheesemaking and what amount of acidity do you require before renneting?

The British Dairy Farmers' Association.

PATRON.—HIS MAJESTY THE KING.
PRESIDENT, 1927.—LORD KENYON, K.C.V.O.
 Gredington, Whitchurch, Salop.

VICE-PRESIDENTS.

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 Singh, Sirdar Datar, Montgomery, Punjab, India.
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 Skelton, Capt. Allan, M.B.E., Rosewarne Farm, Woodham Ferris, Essex.
 Skinner, Jesse, Wressle, Brigg, Lincs.
 Slade & Merton, Willards Hill, Etchingham, Sussex.
 Slater, W. H., Vicarage Farm, Kempston, Beds.
 Slessor, Lady Cynthia, Middleton Stoney, Oxfordshire.
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 Smith, A. Carlyle, Sutton Hall, Woodbridge, Suffolk.
 Smith, B. W., Pledgdon Hall, Henham, Stansted, Essex.
 Smith, Col. Abel Henry, Woodhall Park, Hertford. (Agent, F. Lipscomb, Estate Office.)
 Smith, Clement C., Scarsons, Trimley, Ipswich, Suffolk.
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 Smith, F. Clement, Walton Hall, Felixstowe.
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 Smith, Hon. Mrs. E. M., Gumley Hall, Market Harborough.
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 Stephens, Theo. A., Frensham Manor, near Farnham, Surrey.
 Stephenson, Robert, Burwell, near Cambridge (L.M.).
 Stern, Sir Edward D., Bart., Fan Court, Chertsey, Surrey (L.M.).
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 Stone, Alfred, Stoke Farm, Stoke Bardolph, Notts.

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Wallace, D. B. J., East Anglian Institute of Agriculture, Chelmsford.
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Wallace, Robert, Swangleys Farm, Knebworth, Herts.
Wallace, Samuel, Bedwell Park Farm, Hatfield, Herts.
Wallace, Walter, Knebworth, Herts.
Wallace, William E., Poplar Farm, Eaton Bray, Dunstable.
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Walley, P. H., Towns Green Farm, Wettenhall, Winsford.
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Watt, Sir James, J.P., Knowesfield, Carlisle, Cumberland.
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- Webb, Miss E. A., Rowancroft Farm, Bishopswood, Brewood, Staffs.
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- Whitley, William, Barton Pines, Blagdon, Paignton, South Devon.
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- Wilcox, W. A., Horsington, Templecombe, Som.
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- Wilkinson, Harold, Meadow Bank, Styal, Cheshire.
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 Williams, J. D.
 Williams, Major G. T., Tredrea, Perranwell, Cornwall (L.M.).
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 Williams, Miss R., Brodawel, St. Clears, S. Wales.
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 Williams, Capt. Watkin, Pwllyparc, Edeyrn, Carnarvonshire.
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ABBREVIATIONS—(H.M.) Honorary Member. (L.M.) Life Member.

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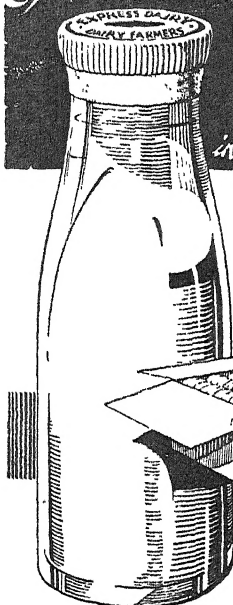
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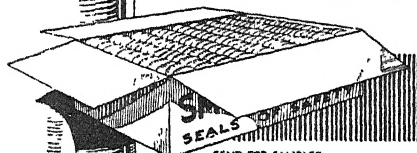


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